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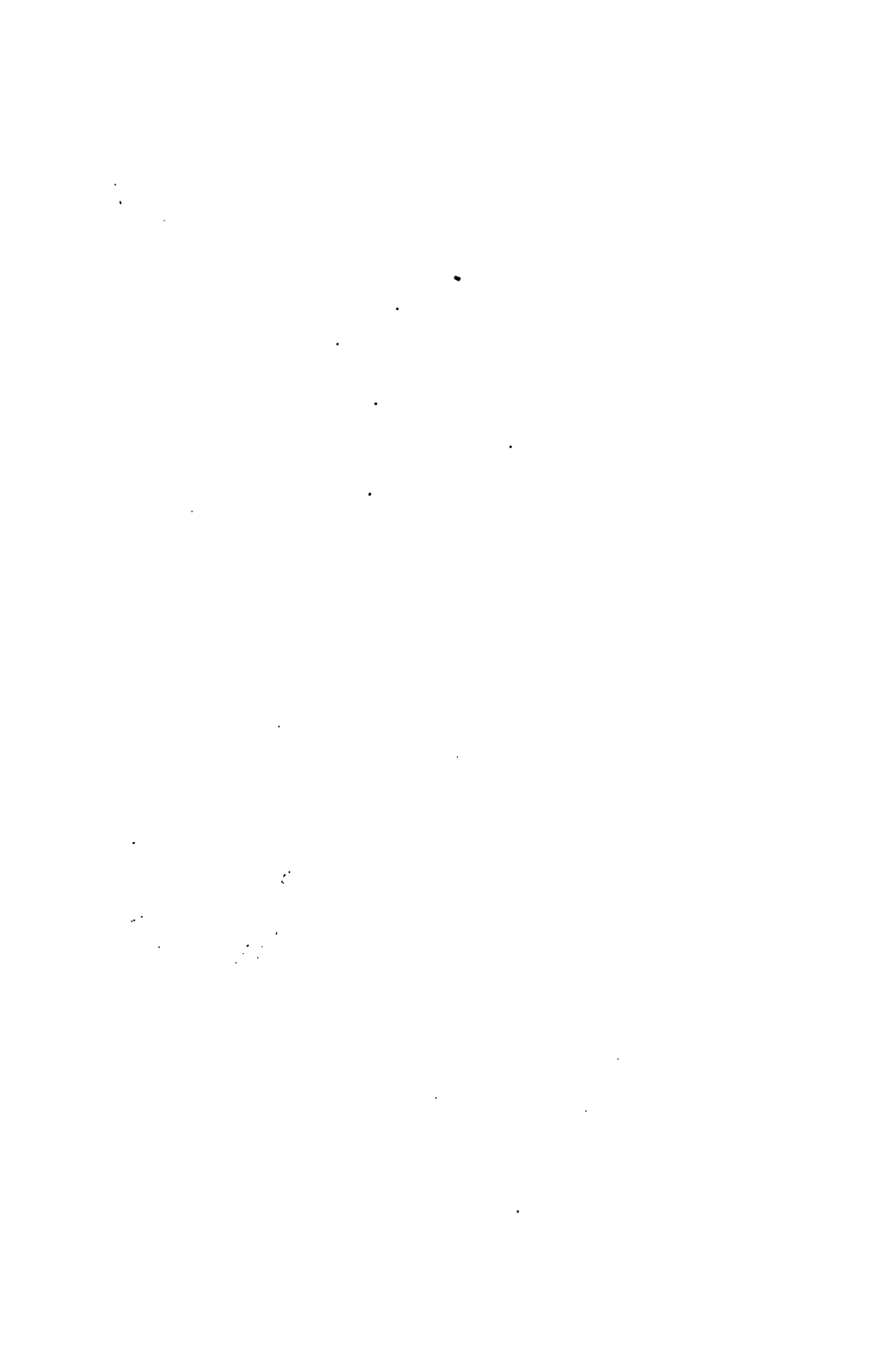
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LEPIDOPTERIST'S
CALENDAR.







THE
LEPIDOPTERIST'S
CALENDAR:

GIVING THE TIME
WHEN THE BRITISH LEPIDOPTERA APPEAR
IN THE
EGG, LARVAL, PUPAL, AND IMAGO STATES;
WITH
THE FOOD-PLANT, AND HABITAT.

BY
JOSEPH MERRIN,
(AUTHOR OF "BUTTERFLYING WITH THE POETS," ETC.)

SECOND EDITION

ENLARGED AND CORRECTED TO THE PRESENT TIME.



GLOUCESTER:
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INTRODUCTION.

(FROM THE FIRST EDITION.)

To know how to do a thing is a great step towards its accomplishment ; but to know exactly *when* to do it, is often the one thing needful to insure success. The regularity with which, at certain definite dates, most species of Butterflies and Moths ordinarily appear, is something almost marvellous ; and many species are not obtained in fine condition through inattention to the time of their advent, while some may be missed altogether. Although every care has been taken in giving the dates of appearance, it is evident that some allowance must be made for the difference of locality, for our variable climate, and for other causes, which militate against an unerring accuracy being always attainable. The time given for the Imagos includes the earliest at which they appear, in ordinary seasons, so that the Collector may be able to secure them in the best condition. It is hoped that the notes under most of the months will be found to contain some useful hints ; and that the CALENDAR, altogether, will prove a useful TIME-GUIDE to the Lepidopterist throughout the year.

INTRODUCTION

TO THE SECOND EDITION.

The study of Butterflies and Moths (Lepidoptera, or scale-winged insects), has been much more generally pursued in this country, than that of any other order of the class *Insecta*. Most of the large towns in England contain one or more students of this attractive order, who take a commendable pride in increasing and improving their collections of specimens ; while in many of our largest centres of population societies have been established to advance the science of Entomology, and increase the number of its students.

Under the encouragement of Government the study of Science generally has, of late years, been immensely extended. The preference largely given to the Physical Sciences, over the Natural Sciences, is doubtless due to the practical mode in which physics have been taught ; while the devotees of Nature have been offered little else than theory, as derivable from books. Field Botany, Field Geology, or Field Entomology has, to a large degree, had to be pursued by individual students, at their own discretion, unaided by that light of experiment and demonstration, which, in the hands of good, practical teachers, has so effectively helped forward the student of Physical Science. This is an omission which ought to be supplied, as the pursuit of Field Studies would be an immense benefit to the sedentary populations of our large cities and towns.

The favourable reception accorded to the First Edition of *THE LEPIDOPTERIST'S CALENDAR* proved that it supplied, however imperfectly, a want that was really felt. The present Edition has been re-cast, re-written, and considerably extended. While largely adding details regarding various species, the Author believes he has carried out several improvements, which

will make the Work both of wider scope, and of easier reference. The arrangement carried out (Doubleday's), is that which is now generally adopted in this country. The number of new species added to our Lists since the publication of the First Edition of the CALENDAR, in 1860, is considerable, and affords a striking proof of the intelligent energy which has been exercised in working out the Lepidoptera. This fact, coupled with the great increase which has taken place in our knowledge regarding a large number of species, rendered a NEW EDITION of the CALENDAR desirable, independent of the fact of its having been for some time out of print, and still in considerable request.

In a work of this kind, which is mainly made up of recorded observation, the great aim of the Author has been to indicate the leading points of what is known of the British Lepidoptera, in all their stages, and to record how they behave *in a state of nature*, rather than under the artificial treatment of the breeder, with a view to finding the species desired, with the smallest expenditure of time and trouble. While breeding insects from the egg is an admirable method of gaining insight into the habits of some species, which could not otherwise be obtained, and especially for the initial steps where the food-plant and habits are wholly unknown, it often has its drawbacks in hiding from view habits pursued in a state of nature, to obtain food, evade enemies, and other important points which pertain to the life-history of the species. Breeding has a legitimate function to perform, in helping to enlighten us as to the occult habits of many species; but to continue the process year after year with the same species, simply for the sake of obtaining "fine specimens" for cabinet exhibition and exchange, is not true science. No one ever heard of a botanist gathering seeds of a rare plant, and imitating the natural conditions in his own garden, and then offering the products of his industry in exchange for other plants he has not been able to obtain. One of the evil results of this system has been that (many rare or local species having been thus secured) no effort is made to obtain a knowledge of their habits in a state of nature, simply because the "blank" their absence caused in the cabinet has been filled up, and we know what the species can be got to eat, and how it behaves in the captivity of the breeding-cage.

In collecting the many details set forth in the CALENDAR, the Author has received important aid from several Entomologists,

including Mr. Charles G. Barrett, Mr. J. B. Hodgkinson, Mr. J. Sang, M. Ragonot, Mr. H. Marsden, Mr. G. T. Porritt, Mr. R. Mitford, Rev. H. Harpur Crewe, Mr. Howard Vaughan, Rev. B. Smith, and others, to all of whom he desires to express his grateful acknowledgments.

With respect to the plan of the CALENDAR, it may be explained that under each month of the year is given the species, as they appear, as

OVA, or Eggs ;

LARVÆ, or Caterpillars ;

PUPÆ, or Chrysalides ; and as

IMAGOS, or perfect Insects ;

With the Plant, or Material upon which they may be found ; or the kind of Hiding-place, or Habitat, in which they are most frequently met with. Where no peculiar habitat could be tabulated, in the case of the Tortrices and the Tinæa, some of the more noted localities are mentioned. The Lists of Ova, as well as of Pupæ, might have been enlarged ; but only those species have been notified about which something definite can be stated. It is only chiefly those Larvæ which hibernate that have had the earlier period of the larval condition noted, in order that the full term of its duration may be indicated. In most other cases the period of approaching maturity only has been given.

After the work open to the Collector, each month, has been thus set forth,

A List of British Lepidoptera,

WITH THE TIMES OF THEIR APPEARANCE.

follows, the months being indicated by Roman numerals. The life of an Insect, in its various stages, can thus be seen at a glance ; while details pertaining to each species will be found specified under the month which is given in the body of the Book, thus rendering a paged Index unnecessary. So few of the smaller species being mentioned as OVA and PUPÆ, they are omitted from the LIST, the Larvæ and Imagos only being
 ven.

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Explanation of Abbreviations.

In order to save space, a few abbreviations have been used in the Monthly Lists. They are as follow :—

s.	...	...	...	Sometimes ; that the species is not constant in appearing at the time indicated
r.	...	...	...	Root ; that the species is found at the root of the plant mentioned
sub.	...	...	...	Subterranean ; that the species pupates in the earth
fl.	...	...	...	Flower, or flowers
♂	...	...	...	Male
♀	...	...	...	Female
l.	...	...	...	Light
b.	...	...	...	Beginning of a month
m.	...	...	...	About the middle of a month
e.	...	...	...	Towards the end of a month
var.	...	...	...	Variety
N.	...	...	...	North
S.	...	...	...	South
E.	...	...	...	East
W.	...	...	...	West
2	...	...	...	Second appearance, or second brood
3	...	...	...	Third, ditto
h.	...	...	...	Hibernates, or hibernation

Corrections and Additions.

P. 35, for the title *Larvæ* on the top of this p. read *Pupæ*.

" 53, near the bottom of the second column *dele* B. uliginosana.

" 99, line 8, *dele* B. uliginosana.

" 115, line 21, for B. uliginosana, read D. Lorquiniana.

Add to the hibernating larvæ appearing in the spring months : N. genistella, from Sept., in a web, among furze.

Add to p. 93, after " fraxinata : " extensaria, a large and rare Eupethecia, reported by Mr. Prest, of York, to have been taken, by Mr Sawyer, on some waste ground near Hull, about the middle of the summer of 1873.

. A few typographical errors in the names will be found in the body of the Book, but they have been corrected in the LIST.

The Lepidopterist's Calendar

JANUARY

OVA]

Beyond a continuation of the winter's work of searching for pupæ, &c., which will be found specified under the months best adapted for *commencing* it, the Lepidopterist will not find much to do in the way of out-door occupation this month. Now is the time to ramble into fresh districts, with the view of discovering new localities, the character of which may often be judged of by the trees, herbage, and general appearance, although no insect-life be stirring. With a view to future reference, the result of such visits should not fail to be recorded in the Entomological Diary, which no one engaged in the study should omit to keep.

While egg-searching may be carried on at those times when little or nothing is stirring in the insect-world, and

"The banks that wore a smiling green,
With rank defilement overspread,
Bewail their flowery beauties, dead,"

the occupation will have its advantage in sometimes rewarding the searcher with a large batch of perhaps some "good" species, besides furnishing him with a knowledge of the habits of many previously unknown. A collection of eggs of Lepidoptera, preserved upon the objects on which they have been laid, would be very interesting. Insect eggs are, of course, generally laid upon, or near the food of the future larva; and therefore the localities where known species occur should be more especially chosen for the work of searching.

Although many eggs are laid late in the spring, or during the summer, soon after the imagos emerge, the eggs of several autumnal species, as well as of many which do not pair until the spring, may be found during the early months of the year, by careful searching. Unless the eyesight is very good, it is desirable for the searcher to call in optical aid in the shape of spectacles, by which he would be enabled to clearly see a minute object like the egg of a lepidopteron at a distance of one or two feet. His chances of success will be thus very much increased. Bright or sunny days should be chosen by preference for egg hunting. By exercise the eye will become rapidly accustomed to this kind of work, and proportionate success may be expected. Many species, particularly some of the bombyces, begin to lay almost immediately after they emerge. Other kinds, notably some of the butterflies,

OVA]

JANUARY

postpone the season of pairing and laying until they have well-nigh worn themselves ragged and bare. A knowledge of these facts will, of course, aid the searcher in his discovery of eggs. Much time may be saved by hitting upon the right time when, and the right place where, to look for certain species, resulting from actual observation, or reasonable deduction.

Many other species besides those named in the lists given in the Calendar, whose larvæ arrive at maturity towards the end of May, may be found during this and the next two months, by searching the twigs, shoots, &c., of trees and bushes.

- | | |
|--|---------------------------------------|
| T. quercus .....on oak | H. pennaria .....on oak |
| " w-album .....on wych elm | F. pinetaria .....on bilberry |
| " pruni .....on sloe | H. aurantiaria ...on oak, birch, haw- |
| L. Ægon .....on Ornithopus per- | thorn, &c. |
| pusillus; white | " defoliaria .....on oak, nut, sloe, |
| H. comma .....on trefoil, and other | hawthorn, birch, elm, lime, &c. |
| Leguminosæ | C. brumata .....on oak, and other |
| L. dispar .....on trunks of sloe, | trees |
| hawthorn, and fruit trees; in a | " boreata.....on birch |
| conical heap, covered with | O. dilutata ....on oak, and other |
| down | trees |
| " monacha .....on oak, beech, birch, | " filigrammaria on willow |
| fir, apple, &c. | E. subciliata ....on maple; at foot- |
| T. cratægi .....on hawthorn; also | stalk of leaf |
| s. sloe, willow, birch, oak | M. rubiginata ...on alder; large |
| P. populi .....on oak, poplar, lime, | S. vetulata .....on buckthorn |
| ash, hawthorn | C. immanata ....probably on alder, |
| B. neustria .....on hawthorn, sloe, | and other trees, and strawberry, |
| orchard trees; in batches spi- | bilberry, &c.; large |
| rally round twigs and branches | " prunata .....on currant, and |
| " castrensis..... on Artemisia mari- | gooseberry; upon the bark; |
| tima, Daucus maritimus, &c. | large |
| E. vespertaria .. on nut | " testata .....on heath, birch, |
| " apiciaria .....on poplar, willow, | willow, poplar, &c.; singly, |
| willow | large |
| C. elinguarina ...on oak, honeysuckle, | " populata .....on bilberry, whortle- |
| hawthorn, sloe; also heath, bil- | berry; globular, large, yellow |
| berry, &c.; brick-shaped, large, | " fulvata .....on dog rose; rose |
| purplish slate colour | pink, large |
| E. alniaria .....on alder, birch, sal- | " pyraliata .....on Galium, and |
| low, beech, &c.; brick-shaped, | hawthorn; large |
| like all the Ennomos | " dotata .....black, and red cur- |
| " tiliaria .....on oak, willow, | rant; large |
| birch, alder, &c.; purplish | E. cervinaria ...on willow |
| " fuscantaria ..on ash, privet; upon | lineolata .....on Galium |
| the twigs, in small batches | C. spartiata .....on broom |
| " erosaria .....on oak, birch, &c. | T. chærophyllata on Bunium flex- |
| " angularia .....on oak, birch, beech, | uosum |
| &c. | P. Cassinea .....on oak |

OVA]

JANUARY

- P. plumigera ...on maple, chiefly on the twigs, in hedges not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish beneath
- G. flavago.....on marsh thistles, burdock, &c. ; in heaps
- O. lotaon willows, & sallow
- T. subtusa.....on poplar; upon the twigs
- " retusasallow, willow, poplar; upon the axils of the leaves
- P. chion dock, hawthorn, sallow; and probably lettuce, sow thistle, "tea tree," &c.; purplish brown
- " flavocincta ...on dock, chickweed, groundsel, mint, &c.; in gardens on everlasting pea, plum, &c.
- H. proboscidalis on nettle; rather large, globular, (slightly oval) indented on upper side; pale yellow

LARVÆ]

The following are among the larvæ which may be found this month:—

- L. lithargyria ...chickweed, plantain, grasses, &c.
- A. sauciafrom Nov., plantain, dock, and other low plants
- P. meticulosa ...from Nov., groundsel, and various low plants
- S. anomalagrass, in open parts of woods
- P. farellaAnthyllis vulneraria; may be found hibernating in balls of sand during the winter
- E. elutellanuts, cocoa nibs, figs, dog biscuit, &c.
- " ficellafigs
- " artemesiella . Artemesia vulgaris, and A. absinthium; through the winter inside the r. stalks
- M. cephalonica...from Nov., dried currants, &c.
- P. gentiana ...teazle heads
- O. antiquana ...Stachys arvensis, r.
- E. gallicolana ...oak apple galls
- C. cosmophorana bark of spruce and Scotch fir
- R. resinanain twigs of Scotch fir; and it is said in the resinous exudation
- N. aurella.....bramble; may be found almost throughout the year, mining bramble leaves
- S. corollanashoots of aspen
- D. tanacetana (?) tansy
- A. Schreibersiana bark of elm
- " ænianain r. of ragwort
- C. Dipoltana ...seeds of Achillea millefolium
- T. rusticellaon cloth, &c.
- CE. pseudo-spretella in dried peas, &c.
- E. fenestrella ...all the year round; on waste substances in houses
- B. grandipennella furze

Besides the above there are a large number of other larvæ which have hibernated. These, however, will be found specified under the next, and following months, by which time their food-plants are beginning to be obtainable.

If the winter is a very mild one, some of the species set out under February and March may be found this month, and some portion of the work falling due in those months may now be performed.

PUPÆ]

JANUARY

Pupæ hunting this month, with the thermometer down, and "the wind's low stage" exercising its depressing effect, is likely to be rather trying work. In the list which is appended the species which are to be found in the early part of the winter are repeated, in order that the full amount of work to be done in this department may be seen, and that that which has not been sufficiently attended to before the winter set in, may be looked after as opportunity offers.

- P. Machaonon stems of Peucedanum palustre; in fens
- P. brassicæ... } on palings, walls,
" rapæ..... } &c.
" napi..... }
- A. cardamines...on stems of grass,&c.
- S. ocellatussub. at willows, poplars, &c.
- " populisub. at poplars, willows, &c.
- " tilizæsub. at elm, lime, beech
- C. ligniperda ...at various trees; spun up, under bark, &c.; but s. buries
- L. asellusspun up, on a leaf
- A. mendicaunder moss, on trees bordering ditches
- " lubricepeda } spun up, on trees,
" menthrasti } palings, &c.
- " urticæunder moss, on trees
- O. pudibunda ...in dead leaves, under moss, &c.
- E. lanestriscocoon on the ground, near hawthorn, sloe, &c.; s. remains in pupa many years
- E. versicolora ...spun up, at birch
- S. carpinicocoon amongst leaves, heath, &c.
- E. dolobraria ...under moss, on oak, &c.
- S. illunariasub., at willow, oak, &c.
- " lunariaat sloe, oak, nut, &c.
- O. bidentataunder moss, on various trees
- N. zonariasub., at sandhills, on the coast
- " hispidaria ...at oak
- B. hirtaria.....sub., at elm, lime, ash, and fruit trees
- A. prodromaria sub., at oak, elm, &c.
- " betulariasub., at oak, elm, birch, and other trees
- H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet
- T. consonaria ...under moss, at r. of beech, oak, birch
- T. crepuscularia under moss, on alder, birch, elm, poplar, willow; or in bark crevices
- " biundularia ...spun up, on oak, and birch
- " punctulata ...under moss, on birch and alder; or in bark crevices
- I. lacteariaspun up, among leaves of oak, and birch
- E. poratafastened to leaf of oak
- " punctariafastened to leaf of oak, or birch
- " trilineararia ...fastened to leaf of beech
- " pendularia ...fastened to leaf of birch
- E. heparataamong moss, &c., on alder
- C. exanthemaria spun up, under leaves of willow, and alder
- M. liturataat larch, rarely within 2 ft. of the tree
- N. pulveraria ...in withered willow leaves
- F. carbonaria ...among dead leaves of willow, and birch
- " pinariaat Scotch fir, and larch; in open places in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
- H. rupicaprarina in a slight web, on the ground, among hawthorn, sloe, or oak

PUPEÆ]

JANUARY

- H. leucophearia on the ground, near oaks
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliaria... sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. æscularia.....sub., at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulatawithin the spun-up sepals of yellow rattle
 " decolorata ...about *Lychnis dioica*
 E. venosataabout *Silene*, and *Lychnis*
 " consignata ...probably under moss, & loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata about *Clematis vitalba*
 " fraxinataon ash, under moss, and loose bark
 " vulgata.....sub., about various plants, and trees
 " minutataabout heath
 " assimilata.....in crevices about currant and hop
 " exiguataabout oak, &c.
 M. ocellataamong Galium; spun up, near the ground
 M. subtristata } sub., near Galium
 " galiata }
 A. sinuata.....in earthen cocoon, on the ground among Galium
 " badiata... ..in earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose
 C. sagittataspun up, among *Thalictrum*, or on the ground near; in fens
 E. lineolatacocoon attached to Galium verum, under the surface, on coast sandhills
 D. bicuspisspun up, on birch trunks in the south; alder in the north; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or sallow
 D. bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and sallow; three or four feet from the ground
 S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtula... ..spun up, between dead leaves of poplars, & sallow
 " reclusa.....spun up, among dead leaves of sallow, poplars, willow
 P. palpinaat willows, and poplars, on edges of streams, or under sods near
 N. camelinasub., at various trees
 " cucullinasub., at maple, and sycamore
 " carmelitasub., at birch
 " dictæaat poplars, and willows, or under sods near
 " dictæoides ...sub., at birch
 " dromedarius sub., at birch, alder, nut
 " zizacsub., at poplars, sallow, willows
 " trepidasub., at oak
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and birch
 T. batis.....near bramble, and wild raspberry
 C. duplarisbetween united birch leaves
 " fluctuosaamong birch leaves
 " flavicornis ...between united birch leaves
 D. Orionat birch and oak, in a cocoon of gnawed bark, or rotten wood
 A. tridens.....spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations in the bark of birch, poplar, alder, sallow

PUPÆ]

JANUARY

- A. aceris spun up, among fallen leaves, and under loose bark of sycamore, horse chesnut, maple, birch, and s. oak [poplar
 " megacephala under loose bark of
 " strigosaamong dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " alnibetween leaves of various trees, or inside bramble sticks
 " ligustrispun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the topstones of walls against the tree
 A. rumicis.....spun up, in crevices of trees, palings, walls, &c.
 A. putrissub. at elm
 D. pinastrisin a cocoon, on the ground, among dock, sorrel, &c.
 X. conspicillaris sub., at elm, and other trees
 M. albicolon.....sub., near Atriplex, Chenopodium, lettuce, &c.
 C. Morpheus ...spun up, in a leaf, or earthen cocoon attached to food-plant [feræ, grass, &c.
 A. segetum, s.sub., among Crucif.
 T. piniperda.....at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep
 T. gothicasub., at various trees
 " leucographa } at r. of low plants
 " rubricosa ... }
 " instabilis ... } at r. of various trees
 " stabilis }
 " opima at r. of Rosa spinosissima, and dwarf willow; on sandhills in the north, below the sand
 " populetisub., at poplars, especially Populus nigra; deep
 " gracilissub., at willows, willows, and low plants [&c.
 " miniosaamong fallen leaves,
 " mundaunder moss, at base of oaks
 T. crudasub., at oak
 D. carpophaga...sub., near Silene and Lychnis, on the coast; found by raking sandhills
 " cæsia ... } sub., about Silene
 " capsophila } maritima, on the coast
 " capsicola ...sub., near Lychnis
 H. serenasub., near Sonchus, and lettuce
 " glaucasub., near willow, and birch
 " oleraceasub., near elm, nettle, dock, &c.; also in kitchen gardens
 " thalassina ...sub., near honeysuckle, willow, broom, &c.
 X. lithorizanear honeysuckle, in a papery cocoon, on the ground
 C. verbasci ... } sub., in earthen cocoon, near mullein and figwort
 " scrophulariæ } s. 2 years in pupa
 " lychnitisin earthen cocoon, near white and black mullein; s. 2 years in pupa
 " asterisnear golden rod, &c.; s. 2 years in pupa
 " gnaphalii near golden rod
 " umbratica ...sub., near Sonchus, &c.
 H. marginata ...sub., near Ononis procurrens
 " dipsaceaamong melilot, and probably Silene oites, and Linaria
 A. myrtillispun up, in heath
 E. venustula.....at r. of Tormentilla reptans, and grass
 B. argentulaamong grass, on the ground
 B. parthenias ...at birch, in crevices of bark, or on the ground
 A. urticæ.....spun up, among nettle leaves
 " triplasiaspun up, among nettle leaves, hop, &c. [garis
 P. ænea.....among Polygala vul-
 E. sambucalis ...spun up, in crevices, in palings, walls, &c., near elder
 G. canella.....among Salsola kali

IMAGOS]

JANUARY

The following species emerge this month :—

- P. pilosaria ♂ comes to l. ; ♀ on tree trunks, &c. H. leucophearia... ♂ often flies by day; ♀ hides on oak trunks [round
H. rupicaprarica on hedges at dusk E. fenestrella ...in houses all the year

The following, with several other species, hibernate, and may be found in this and succeeding months, up to May or June :—

- | | |
|--|---|
| G. rhamnii.....in and near woods on sunny days | A. saucia .....this species has been taken this month and also in Mar., April, July, Aug., Sept., and Oct. |
| C. Edusa .....at rest in hollow trees, outhouses, &c. | C. vaccinii |
| " Hyale | " spadicea |
| V. c-album ... | " erythrocephala |
| " urticae | S. satellitia |
| " polychloros } at rest in outhouses, &c., and s. flying | D. rubiginea..... |
| " Antiopa ... } about on sunny days | H. croceago |
| " Io..... | D. templi ... ..under stone heaps in elevated districts; one or two moths may s. be obtained by turning over a ton of stones! |
| " Atalanta ... | C. vetusta..... |
| " cardui | " exoleta |
| M. stellatarum...from Sept., s. flying in the sunshine | X. conformis ... |
| E. fasciaria ... } may be beaten from | " rhizolitha |
| T. variata } Scotch fir | " semibrunnea |
| C. fluviata | " petrificata ... |
| S. dubitata ... ..comes to light | G. libatrix .....in cellars, and hollow trees |
| C. psitticata ... } in hollow trees, outhouses, &c. | H. rostralis .....in gardens, and outhouses |
| " miata | E. ocella .....comes to l. |
| " silaceata ... } | |
| A. auricoma | |
| L. lithargyria? ... | |
| A. puta | |
| " suffusa | |

FEBRUARY

OVA]

Some of the bright days which sometimes occur during this month, when apparently,

“Winter storms have ceased to chide,”

will be found particularly suitable for egg searching, as it will generally be yet too early to do much with larvæ, or imagos. The eggs obtainable last month, and which still remain unhatched, are repeated under this, and succeeding months, until they hatch; so that the work to be done in this department can be clearly seen.

- | | |
|--|--|
| T. quercus .....on oak | E. fuscantaria ...on ash, privet; upon |
| „ w-album..... on wych elm | the twigs, in small batches |
| „ pruni .....on sloe | „ erosaria .....on oak, birch, &c. |
| L. Ægon .....on Ornithopus per- | „ angularia .....on oak, birch, beech, |
| pusillus; white | &c. |
| H. comma .....on trefoil, and other | H. pennaria .....on oak |
| Leguminosæ | F. pinetaria ... ..on bilberry [sloe |
| L. dispar .....on trunks of sloe, | H. rupicaparia on oak, hawthorn, |
| hawthorn, and various fruit | „ aurantiaria... on oak, birch, haw- |
| trees; in a conical heap, covered | thorn, &c. |
| with down | „ defoliaria .....on oak, nut, sloe, |
| „ monacha .....on oak, beech, birch, | hawthorn, birch, elm, lime, &c. |
| fir, apple, &c. | C. brumata ... ..on oak, and other |
| T. cratægi .....on hawthorn; also s. | trees |
| sloe, saw, birch, oak | „ boreata .....on birch |
| P. populi .....on oak, poplar, lime, | O. dilutata .....on oak, and other |
| ash, hawthorn | trees |
| B. neustria .....on hawthorn, sloe, | „ filigrammaria, on saw |
| orchard trees; in batches spi- | E. subciliata ...on maple; at foot- |
| ally round twigs and branches | stalk of leaf |
| „ castrensis .....on Artemisia mari- | M. rubiginata ...on alder; large |
| tima, Daucus maritimus, &c. | S. vetulata .....on buckthorn |
| E. vespertaria ...on nut | C. immanata ...probably on alder, |
| „ apiciaria .....on poplar, willow, | and other trees, and strawberry, |
| sallow | bilberry, &c.; large |
| C. elinguarua.....on oak, honeysuckle, | „ prunata .....on currant, and |
| hawthorn, sloe; also heath, bil- | gooseberry; upon the bark; large |
| berry, &c.; brick-shaped, large, | „ testata on heath, birch, sal- |
| purplish slate colour | low, poplar, &c.; singly, large |
| E. alniaria .....on alder, birch, sal- | „ populata .....on poplar, bilberry, |
| low, beech, &c.; brick-shaped, | whortleberry; globular, large, |
| like all the Ennomos | yellow |
| „ tiliaria .....on oak, saw, birch, | „ fulvata .....on dog rose; rose- |
| alder, &c.; purplish | pink, large |

OVA]

FEBRUARY

- C. pyraliataon Galium, haw-
thorn; large
" dotataon black, and red
currant; large
E. cervinaria.....on mallow
C. spartiataon broom
T. chærophyllata...on Bunium flex-
uosum
P. Cassineaon oak
P. plumigera ...on maple, chiefly on
the twigs, in hedges not shaded
by trees. Often singly, but
s. in clusters of two, three,
or many more. Circular,
smooth, brown above, whitish
beneath
G. flavagoon stems of marsh
thistles, burdock, &c.; in heaps
- O. lotaon willows, & sallow
T. subtusaon poplar; upon the
twigs
" retusaon sallow, willow,
poplar; upon the axils of the
leaves
P. chion dock, hawthorn,
sallow; and probably lettuce,
sow thistle, "tea tree" &c.;
purplish brown
" flavocincta ...on dock, chickweed,
groundsel, mint, &c.; in gardens,
on everlasting pea, plum, &c.
X. conformis ...on alder, birch
H. proboscidalis. on nettle; rather
large, globular (slightly oval)
indented on upper side; pale
yellow

LARVÆ]

If the weather is mild, many hybernating larvæ may be found in the evening, or in the day-time where the sun is shining. Those feeding on grasses, low plants, &c., are best found in the evening, with the aid of a lantern. The edges of wood-ridings, hedge banks, &c., should be examined on mild evenings, and a good supply of the herbage upon which the species is found be taken away for their sustenance.

- O. filigrammaria bilberry and sallows
C. munitata ...from Sept. groundsel
C. suffumata ...full fed in the au-
tumn; turns to a pupa this
month or the next
B. glandifera ...from Sept., lichens
on walls
" perlafrom Sept., lichens
on walls
L. vitellinafrom Oct., grasses
" turcagrasses
" lithargyria ...chickweed, plantain
grasses &c.
" straminea ...common reed, and
coarse grasses, in damp meadows
and borders of streams
M. anceps?
A. basilineafrom Aug., various
plants
A. lucerneæharebell, dandelion,
&c.
- N. festiva from July, violet,
sallows, foxglove, &c.
" umbrosafrom Aug., dock and
various low plants
E. lichenæafrom Nov., ragwort,
and various low plants on the
coast
P. empyreafrom Nov., pilewort,
&c.
S. anomala grass, in open parts
of woods
C. falsellusto May, the moss
growing on walls and rocks,
Grimmea pulvinata, &c.
C. phragmitellus from Oct., common
reed
E. elutellanuts, chocolate, figs,
&c.
P. gentianana ...teazle
O. antiquana ...Stachys arvensis, r.
E. scutulana ...in thistle stems

LARVÆ]

FEBRUARY

- E. gallicolana ...oak apple galls
 C. cosmophorana bark of spruce, and Scotch fir
 R. resinanain twigs of Scotch fir; and it is said in the resinous exudation
 S. corollanashoots of aspen
 D. tanacetana?...tansy
 A. Schreibersiana bark of elm
 C. Dipoltana ...seeds of Achillea millefolium
 P. Birdellain grass stems, and probably among hay grass
 T. rusticellaon cloth, &c.
 I. Oehlmanniella from Oct., in a flat case under fallen leaves
 G. ericetellafrom Sept., Erica cinerea and on E. tetralix, and Calluna erica
 G. luculellain decayed wood
 P. Metzneriella...in heads of Centaurea nigra
 " carlinella ...Centaurea nigra, and thistle heads
 H. bracteellain decayed wood
 C. pseudo-spretella dried peas, &c.
 B. grandipennella furze
 A. Gædaretella...in bark of alder, birch, &c.
 C. farinatella ...Scotch fir
 L. paludicolella...Epilobium
 " atra (Hellerella) hirsutum, hawthorn berries, and shoots of apple
 N. aurellain bramble; may be found all the year round

PUPEÆ]

"February fill-dyke" will oppose many obstacles to the pupa hunter. But it is hoped that the long list of species, many of them decidedly "good," which will be found set forth as possible to be obtained this month, will induce extra activity, and convert what might otherwise be only a simple ramble for health sake, into a profitable, as well as health-giving, excursion.

- P. Machaonon stems of Peucedanum palustre, in fens
 P. brassicæ }
 " rapæ } on palings, walls, &c.
 " napi }
 A. cardamines ...on stems of grass, &c.
 S. ocellatus sub., at willows, poplars, &c.
 " populisub., at poplars, willow, &c.
 " tilixsub., at elm, lime, beech
 C. ligniperda.....at various trees; spun up, under bark, &c.; but s. buries
 L. asellusspun up, on a leaf
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda } spun up, on trees,
 " menthrasti } palings, &c.
 A. urticæunder moss, on trees
 O. pudibunda ...in dead leaves, under moss, &c.
 E. versicolora ...spun up, at birch
 S. carpinicocoon amongst leaves, heath, &c.
 E. dolobrararia ...under moss on oak, &c.
 S. illunariasub., at willow, oak, &c.
 O. bidentata ...under moss on various trees
 N. zonariasub., at sandhills on the coast
 B. hirtariasub., at elm, lime, ash, and fruit trees [&c.
 A. prodormaria...sub., at oak, elm,
 " betularia sub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet

PUPÆ]

FEBRUARY

- T. consonaria ...under moss at r. of beech, oak, birch
 „ biundularia ...spun up, on oak and birch
 „ punctulata ...under moss, on birch, and alder; or in bark crevices
 I. lactearia ...spun up, among leaves of oak, and birch
 E. porata fastened to leaf of oak
 „ punctariafastened to leaf of oak, or birch
 „ trilinearia ...fastened to leaf of beech
 „ pendularia ...fastened to leaf of birch
 E. heparataamong moss, &c., on alder
 C. exanthemaria spun up, under leaves of willow, and alder
 M. liturataat larch, rarely within 2 feet of the tree
 N. pulveraria ...in withered willow leaves
 F. carbonaria ...among dead leaves of willow, and birch
 „ piniariaat Scotch fir and larch; in open places in woods, rarely within 2 feet of the tree, at 1½ to 2 inches deep
 A. æscularia ...sub., at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulatawithin the spun-up sepals of yellow rattle
 „ decolorata ..about *Lychnis dioica*
 E. venosataabout *Silene*, and *Lychnis*
 „ consignata ...probably under moss, and loose bark, in apple orchards
 „ pulchellata ...among the seeds and dead fl., of foxglove
 „ isogrammata about *Clematis vitalba*
 „ fraxinataon ash, under moss, and loose bark
 „ nanataabout heath
 „ vulgatasub., about various plants, and trees
 E. minutata about heath
 „ assimilata ...in crevices, about currant and hop
 „ exiguaabout oak, &c.
 M. ocellataamong Galium; spun up, near the ground
 M. subtristata } sub., near Galium
 „ galiata }
 A. sinuatain earthen cocoon; on the ground, among Galium
 „ badiatain earthen cocoon; on the ground, beneath dog rose bushes
 „ derivatasub., at dog rose
 C. sagittataspun up, among *Thalictrum*; or on the ground near; in fens
 E. lineolatacocoon attached to Galium verum, under the surface, on sandhills
 D. bicuspisspun up, on birch trunks in the S.; alder in the N.; rarely above 2 ft., from the ground
 „ furculaspun up, on trunk of willow, or willow
 „ bifidaspun up, on trunk of poplars
 „ vinula spun up, on trunk of willows, poplars, and willows; three, or four feet from the ground
 S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtulaspun up, between dead leaves of poplars, and willow
 „ reclusaspun up, among dead leaves of willows, poplars, willows
 P. palpinaat willows, and poplars, on edges of streams, or under sods near
 N. camelina ...sub., at various trees
 „ cucullina .. .sub., at maple, and sycamore
 „ carmelitasub., at birch
 „ dictæaat poplars, and willows, or under sods near

PUPÆ]

FEBRUARY

- N. dictæoides* ...sub., at birch
 " *dromedarius*...sub., at birch, alder, nut
 " *ziczac*sub., at poplars, sal-low, willows
 " *trepida*sub., at oak
 " *Chaonia*sub., at oak
 " *Dodonea*sub., at oak, and birch
T. batis near bramble, and wild raspberry [leaves
C. duplarisbetween united birch
 " *fluctuosa* ... among birch leaves
 " *flavicornis* ...between united birch leaves
D. Orionat birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
 " *psi*in bark crevices of various trees
 " *leporina*in excavations in the bark of birch, poplar, alder, willow
 " *aceris* ... spun up, among fallen leaves, and under loose bark of sycamore, horse chesnut, maple, birch, and s. oak
 " *megacephala*...under loose bark of poplar
 " *strigosa* among dead leaves of hawthorn, or rubbish or decayed wood; s. sub.
 " *alni*between leaves of various trees, or inside bramble sticks
 " *ligustri*spun up, under moss, stones &c., near ash, and privet; also sub.; also found under the top stones of walls against the tree
 " *rumicis*spun up, in crevices of trees, palings, walls, &c.
A. putrissub., at elm
D. pinastri.....in a cocoon on the ground among dock, sorrel, &c.
X. conspiciellaris sub., at elm, and other trees
M. albicolon.....sub., near *Atriplex*, *Chenopodium*, lettuce, &c.
C. Morpheus ...spun up, in a leaf, or an earthen cocoon, attached to food plant
A. segetum, s. . sub., among *Cruciferae*, grass, &c.
T. piniperda..... at Scotch and other firs, in open places in fir woods, and on the margin, in crevices of bark, and under moss and fallen needles
T. gothicasub., at various trees
 " *leucographa* } at r. of low plants
 " *rubricosa* ... }
 " *instabilis* ... } at r. of various trees
 " *stabilis* }
 " *opima*at r. of *Rosa spinosissima*, and dwarf willow; on sandhills in the north, below the sand
 " *populeti*sub., at poplars, especially *Populus nigra*; deep
 " *gracilis*sub., at willows, willows, and low plants
 " *miniosa*among fallen leaves &c.
 " *munda*under moss at base of oaks
 " *cruda*sub., at oak
D. carpophaga sub., near *Silene* and *Lychnis*, on the coast; found by raking sandhills
 " *capsophila* .. } sub., about *Silene*
 " *cæsia* } *maritima*
 " *capsicola* ...sub., near *Lychnis*
H. serenasub., near *Sonchus*, and lettuce
H. glaucasub., near willow, and birch
 " *oleracea*sub., near elm, nettle, dock, &c., also in kitchen gardens
 " *thallassina* ...sub., near honeysuckle, willow, broom, &c.
X lithorizanear honeysuckle, in a papery cocoon, on the ground
C. verbasci ... } sub., in earthen co-
 " *scrophulariæ* } coon, near mullein and figwort, s. 2 years in pupa

PUPÆ]

FEBRUARY

- | | |
|---|---|
| C. lychnitis in earthen cocoon,
near white and black mullein ;
s. 2 years in pupa | E. venustula at r. of Tormentilla
reptans, and grass |
| " asteris near golden rod, &c. ;
s. 2 years in pupa | B. argentula among grass, on the
ground |
| " gnaphalii near golden rod | B. parthenias ... at birch, in crevices
of bark, or on the ground |
| " umbratica sub., near Sonchus,
&c. | A. urticæ spun up, among nettle
leaves |
| H. marginata ... sub., near Ononis
procurrens | " triplasia spun up, among nettle
leaves, hop, &c. [garis |
| " dipsacea among melilot, and
probably Silene otites and
Linaria | P. ænea among Polygala vul- |
| A. myrtilli spun up, in heath | E. sambucalis ... spun up, in crevices,
in palings, walls, &c., near elder |
| | G. canella among Salsola kali |

IMAGOS]

The species ordinarily due this month will be round specified below ; but it does not follow that they will be obtainable, even in a favourable locality, unless the weather is tolerably mild.

Some of the wingless ♀ of the genus *Hibernia*, especially when they hide on tree trunks, are often a puzzle to see. In searching trunks, palings, and wooden fences for moths, an operation which may with advantage be pursued at almost all seasons of the year, not much success is likely to follow unless it be done systematically. As in pupa digging, the most protected side of the tree trunk is found to be the most productive, which is generally the northern and eastern face. It is seldom of much use examining the southern side at all ; it is probably too much exposed to sunshine and the prevailing winds to be agreeable as a place of concealment. Fences in protected situations are consequently found to be better for harbouring insects than where fully exposed. Some of the larger moths thus resting are conspicuous enough, even from a distance ; others from their resemblance in colour and marking to the tree trunk or fence, or the lichen upon them, are difficult to be discerned, especially if the wood under examination is a gloomy one, or their resting place is in a "bad light." The tree to be examined should be approached carefully, or some species which are easily alarmed will flit off before the net can be brought into use. A general examination of the north-eastern aspect should be first made, from the highest point at which a moth can be seen down to the ground ; then, if small, or inconspicuous species are being sought for, the finger should be passed in lines down the trunk, the eye attentively following. To the surprise of the searcher he will sometimes thus come upon a specimen he would otherwise have missed.

- | | |
|---|--|
| E. lanestris on tree trunks, near
the ground | A. prodromaria, e. at rest on trees |
| P. pilosaria ♂ comes to light ; ♀
on tree trunks, &c. | N. hispidaria ... at rest on oak
trunks |
| | T. crepuscularia at rest on trees |

IMAGOS]

FEBRUARY

- H. rupicaprar* } at rest on tree trunks
 " *leucophearia* } or in hollow trees;
 " *progemma* } at dusk they frequent
A. æscularia, c. } hedges, the ♀ sitting
 on the twigs, the ♂ fluttering
 around. Hedges favourably
 placed may be beaten into an
 umbrella for the ♀, which may
 also be found on the top ledge of
 palings, &c., running up to the
 highest point. *H. leucophearia*
 ♂ often flies by day
- T. instabilis* at the fallows in
 mild seasons
 " *stabilis* " " "
T. hyemana oak woods " "
T. pellionella ... to November
D. applanella ... flies over hedges, &c.
N. minusculella among pear trees

The following are among the species which have hibernated, and which have been found this month:—

- G. rhamnii* in and near woods
 on sunny days
C. edusa at rest in hollow
 trees, outhouses, &c.
 " *hyale*
V. c-album ... }
 " *urticæ* }
 " *polychloros* } at rest in outhouses,
 " *antiopa* ... } &c., and s. flying
 " *io* } about on sunny days
 " *atalanta* ... }
 " *cardui* }
M. stellatarum, s. from Sept., flying
 in the sunshine
E. fasciaria ... } may be beaten from
T. variata } Scotch fir
C. fluviata comes to l.
S. dubitata comes to l.
C. psitticata ... } in hollow trees, out-
 " *miata* } houses, &c.
 " *silacea* ... }
A. auricoma
L. lithargyria ?
A. puta
 " *suffusa*
- A. saucia* this species has been
 taken this month, and also in
 March, April, July, August,
 Sept., and Oct.
C. vacinii
 " *spadicea*
 " *erythrocephela*
S. satellitia
D. rubiginea
H. croceago
D. templi hides under stone
 heaps, in elevated districts
C. vetusta
 " *exoleta*
X. conformis ...
 " *rhizolitha*
 " *semibrunnea*
 " *petrificata* ...
C. chamomillæ ... at rest on various
 materials
G. libatrix in cellars and hollow
 trees
H. rostralis in gardens and out-
 houses
E. ocellæa comes to l.

MARCH

OVA]

During this boisterous month,

"whose Spring is but the child
Of churlish Winter in her froward moods,
Discovering much the temper of her sire,"

many fine days are often available for entomologising. As many species set forth in the accompanying list will ere long cease to be found in the egg form, it is desirable the collector should clear off his arrears of work in this section as soon as possible. The remarks on egg-hunting under previous months should be re-perused. Wherever a species is known to have occurred, there is a possibility of finding the eggs in likely situations.

- | | |
|---|---|
| <p>T. quercuson oak
 " w-albumon wyth elm
 " prunion sloe
 L. Ægonon Ornithopus per-
 pusillus; white; generally hatch
 this month
 H. commaon trefoil, and other
 Leguminosæ
 L. disparon the trunks of sloe,
 hawthorn, and various fruit
 trees; in a conical heap, covered
 with down
 " monachaon oak, beech, birch,
 fir, apple, &c.
 T. cratægi ... from Oct., on haw-
 thorn; also s. sloe, sawlow,
 birch, oak
 P. populifrom Nov., on oak,
 poplar, lime, ash, hawthorn
 B. neustriafrom July, on sloe,
 hawthorn, and fruit trees; in
 batches spirally round twigs
 and branches
 " castrensis ... from July, on Arte-
 mesia maritima, Daucus mari-
 tamus, &c.
 E. vespertaria ...on nut [sallow
 " apiciariaon poplar, willow,
 N. zonariaon sea reed, or ma-
 rum (Ammophila arundinacea)
 and other sand-hill plants; in
 clusters in the interstices; long,
 bright-green</p> | <p>C. elingularia ...on oak, honey-
 suckle, hawthorn, sloe; also
 heath, bilberry, &c.; brick-
 shaped, large, purplish slate
 colour
 E. alniariaon alder, birch,
 sallow, beech, &c.; brick-
 shaped, like all the Ennomos
 " tiliariaon oak, sawlow,
 birch, alder, &c.; purplish
 " fuscantaria ...on ash, privet; upon
 the twigs, in small batches
 " erosariaon oak, birch, &c.
 " angularia ...on oak, birch, beech,
 &c.
 H. pennariaon oak
 A. prodromaria...in bark crevices of
 oak, birch, elm, nut
 F. pinetariaon bilberry
 H. leucophearina .on oak
 " aurantiaria ...on oak, birch, haw-
 thorn, &c.
 " defoliaria ... on oak, nut, sloe,
 hawthorn, birch, elm, lime, &c.
 C. brumataon oak, and other
 trees
 " boreataon birch
 O. dilutataon oak, and other
 trees
 E. subciliata ...on maple; at foot-
 stalk of leaf
 M. rubiginata ...on alder; large
 A. badiata, e. ...on dog rose</p> |
|---|---|

OVA]

MARCH

- A. derivata, e. on dog rose
 S. vetulataon buckthorn
 C. immanata ...probably on alder,
 and other trees, and strawberry,
 bilberry, &c. ; large
 " prunataon currant, and
 gooseberry; upon the bark;
 large
 " testataon heath, birch, sal-
 low, poplar, &c. ; singly, large
 " populataon poplar, bilberry,
 whortleberry; globular, large,
 yellow
 " fulvataon dog rose; rose
 pink, large [thorn; large
 " pyralataon Galium, haw-
 " dotataon black, and red
 currant; large
 P. cervinaria ...on mallow
 C. spartiataon broom
 P. Cassineaon oak
 P. plumigeraon maple, chiefly on
 the twigs, in hedges not shaded
 by trees. Best found this month
 when the sun is shining, which
 renders them clearly visible.
 Often singly, but s. in clusters
 of two, three, or many more.
 Circular, smooth, brown above,
 whitish beneath
- C. flavicornis, e. on birch; red
 G. flavagoon stems of marsh
 thistles, burdock, &c. ; in heaps
 S. satellitiaon oak; upon the
 twigs
 D. rubiginosa.....probably on apple,
 &c., and dandelion and other
 low plants
 P. chion dock, hawthorn,
 willow, and probably lettuce,
 sowthistle, tea tree, &c. ;
 purplish brown
 " flavocincta ...on dock, chick-
 weed, groundsel, mint, &c. ;
 in gardens on everlasting pea,
 plum, &c.
 D. templion Heracleum sphon-
 dylum; upon the leaves
 T. subtusaon poplar; upon
 the twigs
 " retusaon willow,
 poplar; upon the axils of the
 leaves
 C. vetustaon various meadow
 and marsh plants, also poplar
 X. conformis, b. on alder, birch
 II. proboscidalis on nettle; rather
 large, globular (slightly oval)
 indented on upper side; pale
 yellow

LARVÆ]

A good harvest is sure to reward the industrious worker this month, if he persistently prosecutes his larva-searching, on mild evenings, in good localities, there being so many species which have hibernated, and only now seem to require a ramble before making a selection of their hiding place for pupation.

In the lists of larvæ, the month of origin of hibernation has been specified as far as possible. When a larva ceases to be mentioned, it may be assumed that at the last period of its mention, it was nearly if not quite full fed.

- S. Ægeria... ..from Sept., grasses
 " Megærafrom Sept., grasses
 R. cratægata ...from Sept., haw-
 thorn, sloe
 H. auroraria ...from Aug., plantain
- A. osseata... ..from Aug., dande-
 lion, &c.
 S. belgianafrom Aug., heath
 O. filigrammaria bilberry and willows
 E. tenuiatain willow catkins

LARVÆ]

MARCH

- T. variata* Scotch fir, larch, &c.
M. montanata, e. from Oct., prim-rose
C. munitata ... from Sept., groundsel
C. bilineata grasses, chickweed, dock
C. suffumata ... full fed in the autumn; turns to a pupa about this time
E. palumbaria ... broom, Genista, heath, clover, &c.
B. glandifera ... from Sept., lichens on walls
 " perla from Sept., lichens on walls
L. conigera couch, and other grasses. This, and other species of *Leucania* may be s. found by pulling up conspicuous tufts of grass, and gently beating them
 " turca grasses, in woods
 " lithargyria ... chickweed, plantain, grasses, &c.
 " pudorina .. grasses, common reed
 " straminea ... reed, and coarse grasses, in damp meadows and borders of streams
 " impura from Oct., *Carex*, and *Dactylis glomerata*
 " pallens from Oct., *Deschampsia cespitosa*
S. ulvæ from Sept., common reed
X. rurea generally on grasses
 " hepatica from Aug., grasses, chickweed, &c.
A. australis .. from Oct., *Cichorium*, *Poa annua*, and other plants
L. testacea on the lower part of grass stems
M. furva *Aira canescens*
A. basilinea from Aug., various plants; before hibernation on immature grains of wheat
 " unanimis from Sept., grasses. Full fed in autumn; hides under bark of willows or poplars, or among the soil at their roots;
- towards the end of this month wanders about for a few days, then changes to a pupa in a slight cocoon, at the foot of a tree, or under bark
M. strigilis grasses, and other plants
C. alsines from Sept., dock, chickweed, plantain
 " cubicularis ... from Sept., in corn ricks, on grass, pulse, and grain
R. tenebrosa from Sept., various plants
A. corticea from Sept., *Chenopodium*, &c.
 " cinerea from Sept., r. of low plants
 " lucerneæ dandelion, harebell, &c.
 " Ashworthii ... from Sept., fescue grass, hawkweed, sun cistus, thyme, heath, harebell
T. ianthina from Aug., broom, chickweed, &c.
 " fimbria from Oct., birch, sallow, oak, ash, broom, primrose, &c.
 " interjecta dock, mallow, grass, &c.
 " subsequa from Oct., low plants
 " orbona ... from Aug., broom and low plants; when young on sallow buds
 " pronuba from Aug., dock, and various other plants
N. festiva ... from Aug., violet, sallow, foxglove, &c.
 " umbrosa from Sept., dock, and low plants
 " xanthographa from Oct., grasses and low plants
C. xerampelina, s. from Oct., ash; hides in crevices of bark
E. lutulenta from Oct., *Lithospermum arvense*, and other low plants
 " lichenea from Nov., ragwort, and various low plants
P. empyrea from Nov., pilewort, &c.

LARVÆ]

MARCH

- A. advenafrom Aug., lettuce, knotgrass, and various plants
 H. adustafrom Aug., low plants
 " rectilineafrom Aug., sallow, bramble, bilberry
 A. myrtilli, sfrom Aug., heath
 P. chrysisfrom Sept., burdock, thistle, nettle, dead nettle, &c.
 M. typicafrom Sept., dock, low plants, &c.
 " maurafrom Sept., dock, chickweed, ivy, &c.
 H. proboscidalis from July, nettle
 H. derivalisfrom Aug., among dead oak leaves
 " barbalisfrom Sept., birch catkins
 A. pinguinalis ...in greasy horse cloths, rubbish in houses, &c.
 P. stratiotalis ...aquatic, on Callitriche verna, Stratiotes aloides, &c.
 B. asinalis.....from Oct., madder, fl., and young seeds
 S. muralisthe mosses Grimmea pulvinata, Dryum cappilare, &c.
 " mercurialis ...the mosses Hypnum elegans, and Jungermannia dilatata
 " cratægalis ...the mosses Hypnum elegans, and Jungermannia dilatata
 C. tristellusin damp moss
 " culmellusin damp moss
 C. phragmitellus from Oct., reed
 M. cribrellafrom Oct., in thistle stems
 P. abietellafrom Sept., Scotch fir-cones, decayed wood, and shoots
 T. adjunctana...ivy, honeysuckle, &c.
 P. gentianana ...from Nov., in teasel heads [poplar
 G. nisanacatkins of white Penkleriana...alder catkins
 E. cirsiianafrom Sept., in thistle and knapweed stems, in woods
 E. Pfulgianafrom Sept., in thistle and knapweed stems, in open places
 " Brunnichiana in stems of coltsfoot
 " nigricostana...Stachys, r.
 " grandævana...in r. of coltsfoot and Petasites, on the ballast heaps at S. Shields, making long tubes in the sand
 S. Wœberana ...from Oct., bark of plum, &c.
 C. strobilana ...from Oct., cones of spruce
 " Hercyniana ..from Oct., spruce
 R. turionana ...in shoots of Scotch fir
 S. coniferana ...from Oct., under bark of Scotch fir
 " Leplastrierana from Oct., in stems of cabbage
 " regianafrom Oct., under sycamore bark
 D. politanafrom Oct., Achillea millefolium, r.
 E. nanabirch catkins
 " roseana.....from Oct., seeds of teasel
 C. Francillonana from Oct., in stems of wild carrot
 T. pseudo-bombycella from Oct., lichen, on oak trunks, &c.
 S. triquetrella ...on old palings on moors, marshes, &c., in a triangular case
 " inconspicua in a case on trees and palings
 T. ganomellafrom Oct., in birds' nests
 " biselliellafrom Oct., in bird skins, hair seating, &c.
 L. prælatella ...from Sept., in a flat case, under wild strawberry
 A. Degeerella ..from Oct., wood anemone, &c.
 D. assimilella ...broom
 G. ericetellafrom Sept., on Erica cinerea, E. tetralix, and Calluna erica
 " arundinetella..Carex riparia
 " domesticella ..in moss, on old walls

LARVÆ]

MARCH

- G. luculellain decayed wood
 " bifractella ...from Oct., Conyza squarrosa, Inula dysenterica
 " cerealellafrom Oct., in grains of wheat and barley
 P. Metzneriella from Oct., Centaurea nigra, heads
 " carlinella .. from Oct., Centaurea nigra, and thistle heads
 H. bracteella ...in decayed wood
 C. minutella ...on seeds
 " pseudo-spretella from Oct., dried fruit, peas, and other seeds, also hams, &c.
 A. glaucinella ...in bark of oak, horse chesnut, &c.
 " Goedartella ...in bark of alder, birch, &c.
 " Brochellabirch shoots
 C. farinataella ...Scotch fir
 " Gysselinella...Scotch fir, in a web between leaves
 O. pinariellaScotch fir
 G. tringipennella in plantain
 C. pyrrhulipennella from Oct., heath
 " discordella from Oct., Lotus corniculatus
 " genistæcolella from Oct., Genista anglica
 C. lineolellaBallota nigra
 " juncicolella ...from Oct., heath
 " laricellafrom Sept., larch
 " viminetellafrom Sept., sallow, and osier
 " solitariella ...from Oct., Stellaria holostea
 L. palludicolella Epilobium hirsutum
 " atra (hellerella) hawthorn berries, and shoots of apple
 C. flavicapitella from Sept., in twigs of hawthorn, in which it bores
 A. æratellafrom Oct., galls on knotgrass
 E. apicipunctella from Oct., in Aira
 " cinereopunctella from Sept., in Carex glauca
 " trapeziella ...from Oct., in Luzula pilosa
 " subobscurella Holcus mollis
 T. marginea (emyella) from Oct., in bramble
 " dodonæella ..from Oct., in oak
 P. trigonodactylus in coltsfoot, fl. stems
 " tephradactylus from Sept., golden rod, in shady places
 " ostedactylus from Sept., golden rod

PUPÆ]

As other, and more attractive work will soon be crowding upon us, and many species are beginning to emerge, the final search for winter pupæ should, if possible, be completed this month, if it has not been done long before.

- P. Machaonon stems of Peucedanum palustre ; in fens
 P. brassicæ }
 " rapæ } on palings, walls, &c.
 " napi }
 A. cardamines on stems of grass, &c.
 L. Alsusamong Anthyllis vulneraria
 S. ocellatussub., at willows, poplars, &c.
 " populisub., at poplars, willow, &c. [beech
 " tilixsub., at elm, lime,
 C 2
 C. ligniperda ...at various trees ; spun up, under bark, &c., but s. buries
 L. asellusspun up, on a leaf
 L. rubricollis ...under moss, on rotten trees, larch, &c.
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda } spun up, on trees,
 " menthrasti } palings, &c.
 " urticæunder moss, on trees
 O. pudibunda ...in dead leaves, under moss, &c.

PUPÆ]

MARCH

- E. versicolora* ...spun up, at birch
S. carpinicocoon amongst leaves, heath, &c.
E. dolobrararia ...under moss, on oak, &c.
S. illunariasub., at willow, oak, &c.
O. bidentata ...under moss, on various trees
N. zonariasub., at sandhills on the coast
B. hirtaria.....sub., at elm, lime, ash, and fruit trees
A. betularia.....sub., at oak, elm, birch, and other trees
H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet
T. consonaria ...under moss at r. of beech, oak, birch
 " *biundularia* ...spun up, on oak, and birch
 " *punctulata* ...under moss, on birch and alder, or in bark crevices
I. lacteariaspun up, among leaves of oak, and birch
E. poratafastened to leaf of oak
 " *punctaria*fastened to leaf of oak, or birch
 " *trilineararia*.....fastened to leaf of beech
 " *pendularia* ...fastened to leaf of birch
E. heparataamong moss, &c., on alder
C. exanthemaria spun up, under leaves of willow, and alder
M. liturataat larch, rarely within 2 ft. of the tree
N. pulveraria ...in withered willow leaves
F. carbonaria ...among dead leaves of willow, and birch
 " *pinaria*At Scotch fir, and larch; in open places in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
L. multistrigaria, sub., about Galium
E. albulatawithin the spun-up sepals of yellow rattle
E. decolorata ...about *Lychnis dioica*
E. venosataabout *Silene*, and *Lychnis*
 " *consignata* ...probably under moss, and loose bark, in apple orchards
 " *pulchellata* ...among the seeds, and dead fl. of foxglove
 " *isogrammata*, about *Clematis vitalba*
 " *fraxinata*on ash, under moss, and loose bark
 " *nanata*about heath
 " *vulgata*.....sub., about various plants and trees
 " *minutata*about heath
 " *assimilata* ...in crevices, about currant and hop
 " *exiguata* ...about oak, &c.
M. ocellataamong Galium; spun up, near the ground
M. subtristata } sub., near Galium
 " *galiata* }
A. sinuata.....in earthen cocoon; on the ground, among Galium
 " *badiata*.....in earthen cocoon, on the ground, beneath dog rose bushes
 " *derivata*sub., at dog rose
C. sagittataspun up, among *Thalictrum*; or on the ground near; in fens
 " *suffumata* ...changes to a pupa this month among bedstraw or ragwort
E. lineolatacocoon attached to Galium verum under the surface on coast sandhills
D. bicuspisspun up, on birch trunks in the south; alder in the north; rarely above 2 ft. from the ground
 " *furcula*spun up, on trunk of willow, or willow
 " *bifida*spun up, on trunk of poplars
 " *vinula* ...spun up, on trunk of willows, poplars, and willow; three or four feet from the ground

PUPÆ]

MARCH

- S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
- P. bucephala ...sub., at various trees
- C. curtaspun up, between dead leaves of poplars, and willow
- „ reclusaspun up, among dead leaves of willows, poplars, willows
- P. palpinaat willows, and poplars, on edges of streams, or under sods near
- N. camolinasub., at various trees
- „ cucullinasub., at maple, and sycamore
- „ carmelitasub., at birch
- „ dictæaat poplars, and willows, or under sods near
- „ dictæoides ...sub., at birch
- „ dromedarius ..sub., at birch, alder, nut
- „ ziczacsub., at poplars, willow, willows
- „ trepida sub., at oak
- „ Chaoniasub., at oak
- „ Dodoneasub., at oak, and birch
- T. batisnear bramble, and wild raspberry
- C. duplarisbetween united birch leaves
- „ fluctuosaamong birch leaves
- D. Orionat birch, and oak, in a cocoon of gnawed bark, or rotten wood
- A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
- „ psiin bark crevices of various trees
- „ leporinain excavations in the bark of birch, poplar, alder, willow
- „ acerisspun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch, and s. oak
- „ megacephala under loose bark of poplar
- A. strigosaamong dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
- „ alnibetween leaves of various trees, or inside bramble sticks
- „ ligustrispun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls against the tree
- „ rumicisspun up, in crevices of trees, palings, walls, &c.
- A. putris sub., at elm
- D. pinastrisin a cocoon, on the ground, among dock, sorrel, &c.
- X. conspiciaris, sub. at elm, and other trees
- M. albicolonsub., near Atriplex, Chenopodium, lettuce, &c.
- C. Morpheus .. spun up, in a leaf, or an earthen cocoon attached to food-plant
- A. segetum, s. .. sub., among Crucifere, grass, &c.
- T. piniperdaat Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep
- D. carpophaga .. sub., near Silene, and Lychnis, on the coast; found by raking sandhills
- „ capsophila } sub., about Silene
- „ cæsia } maritima
- „ capsincola ...sub., near Lychnis
- H. serenasub., near Sonchus, and lettuce
- H. glaucasub., near willow, and birch
- „ oleraceasub., near elm, nettle, dock, &c., and in kitchen gardens
- „ thalassina sub., near honeysuckle, willow, broom, &c.
- C. verbasci ... } sub., in earthen coo-
- „ scrophulariæ } con, near mullein, and figwort
- „ scrophulariæ } s. 2 yrs. in pupa

PUPÆ]

MARCH

- | | |
|---|--|
| C. lychnitisin earthen cocoon,
near white and black mullein ;
s. 2 yrs. in pupa | B. parthenias ...at birch, in crevices
of bark, or on the ground |
| " asteris near golden rod, &c. ;
s. 2 yrs. in pupa | A. urticæ.....spun up, among nettle
leaves |
| " gnaphaliinear golden rod | " triplasiaspun up, among nettle
leaves, hop, &c. |
| " umbratica ...sub., near Sonchus,
&c. | P. æneaamongst Polygala
vulgaris |
| H. marginata .. sub., near Ononis
procurrens | E. sambucalis ...spun up, in crevices
in palings, walls, &c., near
elder |
| " dipsaceaamong melilot, and
probably Silene otites, and
Linaria | G. canella.....among Salsola kali |
| E. venustula.....at r. of Tormentilla
reptans, and grass | H. prasinana .. under moss at base
of oaks |
| B. argentulaamong grass, on the
ground | I. masculella } among dead leaves
" zinckenella } of birch and oak
" oehlmanniella } |

IMAGOS]

If the season should be a forward one, the fallows will be in bloom this month. They are found to be a great attraction to most of the moths on the wing at this period, more especially the *Tæniocampæ*, and the hibernating *Noctuæ*. These, having

"skimmed the dusk fields,"

we shall find feasting on the sparse blossoms,

"In the retired quiet of the night."

If the fallow bushes we are in the habit of visiting are awkwardly situated for the capture of moths, branches of them may be cut before dark, and stuck into the ground at convenient places. If they should afterwards take root in these places, they may save the trouble of the process being repeated next season.

The following are the freshly-emerged species which ordinarily appear this month :—

- | | |
|--|--|
| P. rapæ.....gardens, &c. | L. multistrigaria |
| E. lanestrisat rest on hawthorn,
&c. | E. abbreviata ...among oak |
| E. versicolora ...in birch woods | L. lobulata .....on Scotch fir trunks |
| S. illustraria | A. badiataat fallows, and fly-
ing over hedges at dusk |
| P. pilosaria at l. ; ♀ on tree trunks | " derivata |
| N. hispidaria ...on oak trunks | P. polygrammata damp meadows ;
very local |
| B. hirtaria..... | P. nubeculosa |
| A. prodromaria s. on oaks | N. carmelita.....on birch trunks, and
palings near. Flies in the sun-
shine ; may be taken at fallows ;
and is attracted by puddles |
| T. crepuscularia on tree trunks | C. flavicornis ...at rest on birch twigs |
| H. leucophearia) rest on tree trunks ;
progemmaria) fly at dusk ; s. come | |
| A. æscularia ...) to fallows (See last
month) | |

IMAGOS]

MARCH

- C. ridensat rest on oaks,
at 1 ft. to 4 ft. from the
ground
- L. lithargyria, s.
- X. conspicillaris, e. at rest on tree
trunks, especially where the
bark has been stripped; has
also been beaten
- T. piniperda.....at sawflies, and at
rest on fir trees
- T. gothica.....) The whole of this
" gothacina...) genus visit the sal-
" leucographa) low blossoms at dusk
" rubricosa...) and remain feasting
upon the honey they contain for
some hours
- " instabilis...) If the situation is
" opima) favorable the great-
" populeti ...) est number may be
" stabilis) captured by a sheet
" gracilis) being spread under
" miniosa) the bushes. Where
" munda) they are difficult to
" cruda) reach, branches of
blooming sawfly may be cut
before dark, and fixed in the
ground
- V. oleagina
- X. lithorizaat sawflies, and on
trees, walls, &c.
- C. chamomillæ...has been taken at
rest on iron bars, and various
materials, probably h.
- B. parthenias ...birch woods; flies
on sunny mornings over birch
trees, and round sawflies
- " nothiarests on a-pens; flies
in the sunshine round sawflies, &c.
- A. prodromana, e., on moors
- S. pauperana ...among wild rose
- P. crenanamoors, &c.
- C. vernana, e.
- " pygmæana, e. among spruce
- H. fimbriana, e. oak woods in the
S., at rest on the branches;
darts to the ground when dis-
turbed
- T. hyemanaoak woods, at rest
on the branches
- D. fagella, e. ...on tree trunks and
palings
- E. avellanella, e. among birch
- T. biselliella ...to Oct.
- D. arenella
- " cinifionella ...Rannoch
- " rhodochrella beaten from thatch
- B. incongruella on moors, &c.
- E. consortella
- N. aurella.....to August, on tree
trunks and palings

The following hibernating species have been taken this month :—

C. Edusa, C. Hyale, at rest in hollow trees, outhouses, &c.; V. c-album, V. urticæ, V. polychloros, V. Antiopa, V. Io, V. Atalanta, V. cardui, at rest in outhouses, &c. and s. flying about on sunny days; M. stellatarum, hovers over fl. in the sunshine, and also flies in the evening; E. fasciaria, and T. variata, among Scotch fir; C. fluviata, and S. dubitata, at l.; C. psitticata, C. miata, and C. silaceata, in hollow trees, outhouses, &c.; A. auricoma, L. lithargyria? A. puta, A. suffusa, and A. saucia; C. vaccinii, C. spadicea, C. erythrocephala? S. satellitia, D. rubiginea, and H. croceago, at sawflies; D. templi, under stones; C. vetusta, C. exoleta, X. furcifera, X. rhizolitha, X. semi-brunnea, X. petrificata; C. chamomillæ, at rest on iron and other fences; G. libatrix, in cellars and hollow trees; H. rostralis, in gardens and outhouses; E. ocellæ, comes to l.; P. mixtana, P. caudella, D. liturella, D. pallorella, D. umbellella, D. arenella, D. propinquella, D. subpropinquella, D. alstræmeriella, D. cinifionella, D. vaccinella, D. conterminella, D. ocellælla, D. applanella (flying over hedges), D. ciliella, D. albipunctella, D. chærophyllivorella, D. heraciella, A. autumnitella, Z. hepariella, Z. insignipennella, G. stigmatella, G. stramineella, G. populella, G. phasianipennella, C. cuculipennella, L. epilobiella, P. suffusella, P. pterodactylus.

APRIL

OVA]

This is the month when many hibernating species deposit their ova, as well as several which are freshly emerged. Owing to the scarcity of leaves upon the trees and bushes, the egg in many cases may be more readily found than when, later in the season, the branches are more covered. Some day-flyer,

“Drawn from his refuge in some lonely elm,
That age or injury has hollowed deep,”

may sometimes be seen, when the sun shines, engaged in the interesting operation of oviposition. By carefully watching, a clue as to the plant upon which the egg is laid, as well as its situation, will be often afforded.

- | | |
|--|---|
| G. rhamni .....on buckthorn; placed singly upon terminal shoots, and on the midrib; pointed | E. angularia ...on oak, birch, beech, &c. |
| V. urticæ .....on nettle; in batches upon underside of the leaves; barrel-shaped, fluted, green | H. pennaria .....from Oct., on oak |
| " Io .....on nettle | B. hirtaria .....on lime, elm, ash, fruit trees; small, green, imbricated |
| T. quercus .....on oak | A. prodromaria in crevices of bark of oak, birch, elm, nut |
| " w-album .....on wych elm | " betularia .....on oak, elm, hawthorn, birch, beech, alder, mountain ash; very small for the size of the moth |
| E. lanestris .....on hawthorn, sloe, &c.; spirally round twigs, and branches | A. æscularia .....on oak, elm, horse-chesnut, privet, &c.; round the twigs, covered with down |
| E. versicolora ...on birch; upon the twigs, in small batches | L. multistrigaria on Galium |
| E. vespertaria ...on nut | E. subciliata ...on maple; at foot-stalk of leaf |
| " apiciaria .....on poplar, willow, sallow | L. lobulata .....on honeysuckle, sallow, willow |
| R. cratægata ...to Sept., successive broods, on hawthorn and sloe; oblong, covered with hexamedal ridges; yellow, with red spots, like the imago | " polycommata on honeysuckle, ash |
| S. illunaria .....in the fissures of the bark of willow, ash, hawthorn, plum, &c.; light pink | M. rubiginata ...on alder; large |
| E. alniaria .....on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos | A. badiata .....on dog rose |
| " tiliaria .....on oak, sallow, birch, alder, &c.; purplish | " derivata .....on dog rose |
| " fuscantaria ...on ash, privet; upon the twigs, in small batches | S. dubitata .....on buckthorn |
| " erosaria .....on oak, birch, &c. | C. prunata .....on currant, gooseberry, sloe; upon the bark; large |
| | " testataon heath, birch, sallow, poplar, &c.; singly, large |
| | " populataon bilberry, whortleberry, poplar; globular, large, yellow |

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- C. fulvataon dog rose; rose pink, large
 " dotataon black and red currant; large
 E. cervinaria ...on mallow
 " lineolata ... on Galium; in clusters of eight or ten; at first pale yellow, but soon change to bright ochreous-brown
 C. spartiataon broom
 P. Cassineaon oak
 " nubeculosa ...on birch
 C. curtulaon poplars & willow
 C. ridenson oak; upon the twigs
 G. flavago.....on stems of marsh thistles, burdock, &c.; in heaps
 A. suffusaon grass, lettuce, radish, &c.
 T. gothica.....on willow, oak, and other trees, also many low plants
 " leucographa.....on plantain; oval, bright yellow
 " rubricosaon dock; pale yellow
 " opimaon *Rosaspinosissima*; in large clusters, conspicuous at a distance; at first pale yellow, but soon change to pinkish brown. The eggs of this species are, however, as often deposited upon the dead seed-heads of ragwort and houndstongue; also upon marum grass (*Ammophila arundinacea*) and willow, growing on sandy sea-shores, as upon the food-plant
 T. populetion twigs of aspen and poplar, especially *Populus nigra*; in clusters below the axils
 " gracilis.....on willow, willow, and low plants; often upon seed-heads of plantain; also upon dead reed-heads
 " miniosaon oak; in clusters below the leaf-buds
 H. croceagoon oak
 C. vetustaon poplar, & various meadow and marsh plants
 " exoletaon scabious campion, rest harrow
 X. petrificata ...on oak, lime, birch; oval, greyish, thickly dotted with purple

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The indications of past hibernation become numerous in the list this month. It might be supposed that moths and butterflies have a very brief life, as they are often only visible in the winged state for a short time; but with many of the larger species the period of life extends over eleven or twelve months, of which nearly nine are passed in the larva state, though a portion of this time, during the severe cold of winter, they are in a torpid condition. In others, though the total length of life is about the same, the larval life is short, and the imago life is long, commencing at the latter part of the summer, and extending through the winter, to the commencement of the succeeding summer,—interrupted, as in the larval life, by a period of torpidity during the winter. Of course with those insects of which two, or three broods appear in the year, the life is very much briefer. Some species hibernate nearly full-fed, or feeding occasionally during mild weather, are found during this and the next month as larvæ, still unchanged. *E. Lichenea* will be found in its haunts on the coast full-fed, and about to change, from now to July. It is a species which is hard to breed away from its native habitat. The two chief modes of capturing larvæ are by beating, and by searching with a lantern in the evening. It is yet too early in the season, now that we only see

"the first

Hedge-grown primrose that hath burst,"

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for much profit to result from beating, but night searching will well repay the labour. Examine the underwood of one or two years' growth, and the grass at the edges of ridings, with a lantern, immediately after dark, every mild evening. Large numbers of different larvæ may be thus taken during this and the following month. Nearly all the genus *Noctua* can be thus easily found.

The rolled-up leaves and shoots of willow contain a large number of species, chiefly tortricæ. They should be put into a flower pot in a cool place, and fresh leaves added when these are becoming dried up. The following are among the species which may be thus bred, and which will appear in June:—*E. viminalis*, *T. cratægana*, *P. Lecheana*, *P. capræana*, *S. dealbana*, *H. angustana*, *G. populælla*, *A. pygmælla*. By shaking or beating wild plants and flowers into a net or other receptacle many larvæ may be obtained, particularly of the smaller species.

Grasses, rushes, and carices are now productive of sundry *Elachistidæ* and *Coleophoræ*, and several of the larger tribes. Sheltered spots in woods and lanes are the best places; and for the larger species wet evenings the best time. The mealy guelder rose, is an early tree, and will repay a search. Hawthorn trees nourish hordes of common larvæ. *P. Verhuellega* must be taken now, mining in the seed fronds of *A. Ruta muraria*, and other ferns. *L. Rubiella* is often too common in raspberry shoots. The pink larva betrays its presence by the blighted aspect of the young shoots.

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| <p><i>A. Niobe</i>from Aug., violet & heartsease; should be looked for in localities where <i>A. Aglaia</i>, and <i>A. adippe</i> abounds</p> <p>" <i>Euphrosyne</i>, e. from July, dog and sweet violet, feeds in the sunshine; hides beneath primrose and other leaves</p> <p>" <i>Selene</i>, efrom July, dog and sweet violet .</p> <p><i>M. Artemis</i>from Aug., in wet meadows, among scabious, plantain, honeysuckle, &c.; rest exposed in the sunshine</p> <p><i>E. Medea</i>from Sept., moorland poa, and other grasses</p> <p><i>S. Megera</i>from Sept., grasses</p> <p>" <i>hyperanthus</i> from Aug., grasses; may be found at night among long grass near woods, &c.</p> <p><i>P. Phlæas</i>from Oct., sorrel, dock, ragwort</p> <p><i>L. agestis</i>from Sept., <i>Erodium cicutarium</i> [&c.</p> <p>" <i>Alexis</i>rest harrow, trefoil,</p> <p>" <i>Adonis</i>from Oct., <i>Hippocrepis comosa</i>, &c.</p> | <p><i>L. Arion</i>thyme; in dry and elevated districts, and hilly, thyme-covered slopes and fields</p> <p><i>S. alveolus</i>bramble, wild raspberry</p> <p><i>T. tages</i>from Sept., <i>Lotus corniculatus</i></p> <p><i>S. myopæformis</i> in stems of apple, pear, plum, hawthorn; chiefly old or unhealthy trees</p> <p>" <i>culiciformis</i> ...in birch and alder</p> <p>" <i>formicæformis</i> from Sept., in osier stumps; the larva-hole, or the gnawings therefrom are often visible; the larva is best sawn out</p> <p>" <i>chrysidiformis</i> inside r. of sorrel and dock; at Folkestone and Eastbourne, and probably other places on the S. & E. coasts; supposed to be 2 yrs. feeding</p> <p>" <i>cynipiformis</i> in the bark of unhealthy-looking oaks and old stumps</p> <p>" <i>tipuliformis</i> ...from Oct., in the stems of old currant bushes</p> |
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- S. scoliaeformis in birch; seems to prefer the stem of a tree which has been felled
- " sphegiformis in young suckers of alder, where the old tree has been cut down. The larva eats a gallery up the centre of the shoot nine or ten inches, then turns aside, and eats through the bark, where it assumes the pupa state
- " asiliformis ...in r. of poplar and ash. Wait till the pupæ are bedded near the entrance of the burrow
- " apiformisfrom Sept., in stems of poplar; often 2 yrs. feeding. Wait till the pupæ are bedded near the entrance of the burrow
- M. arundinis.....in stem of common reed; often causes the plant to look unhealthy
- H. hectusfrom Aug., in roots of brake fern; two seasons feeding
- " lupulinusfrom Aug., in roots of dead nettle, &c.
- " velledafrom Aug., in roots of brake fern, &c.
- " humulifrom Aug., in roots of burdock, nettle, dead nettles, &c.
- Z. nubigenafrom July, thyme
- L. pygmaeola ...lichens, among moss
- C. plantaginis ...from Sept., plantain, violet; best found at night
- " villicafrom Sept., chickweed, furze, and other plants
- A. fuliginosa .. from Sept., dock, nettle, plantain, borage, &c., often hides under the leaves
- L. chrysorrhæa...from Sept., sloe, hawthorn, &c.
- B. roborisfrom Sept., hawthorn, dogwood, bramble, broom, heath, &c.
- " quercusfrom Sept., bilberry, &c.; also eats dogwood
- O. potatoriafrom Sept., coarse grasses
- E. apiciarianut, poplar, willow, alder
- A. prunariafrom October, sloe, beech, broom, bramble, willow, hawthorn, plum, &c.
- E. fasciaria ...from Sept.; Scotch fir
- P. syringaria ...from Sept., lilac, privet, elder, honeysuckle; may be found at night hanging from its food
- C. lichenaria.....from Sept., lichens, on oak
- B. repandata.....bramble, sloe, birch, plum, spindle, and upon almost all sorts of underwood
- " rhomboidaria from Sept., ivy, birch, oak, plum, rose, lilac, elder, &c.
- " perfumaria ..ivy, lilac, clematis, &c.
- " abietariafrom Sept., larch, spruce, and Scotch fir
- " roborariafrom Sept., oak
- G. obscurata.....from Sept., Potentilla reptans, Poterium sanguisorba, thyme, grass, sun cistus, &c.; s. found concealed by day among stones
- H. auroraria.....from Aug., plantain
- A. candidata ...hornbeam
- A. rubricatafrom Aug., ———? will eat knotgrass, dandelion, Lotus corniculatus, Medicago lupulina, Thalictrum minus
- " scutulatafrom August, Anthriscus sylvestris, fl. and dandelion, preferring the withered leaves
- " bisetatafrom Aug., dandelion; will also eat knotgrass and withered bramble
- " trigeminata .. from July, some low plant? will eat knotgrass
- " osseatafrom Aug., dandelion, &c.
- " interjectaria ..from Aug., dandelion, scarlet pimpernel, withered
- " ornata, s.from Sept., thyme
- " remutatafrom August, low plants? will eat knotgrass
- " fumatafrom Aug., heath

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- A. strigilatafrom Aug., *Stachys sylvatica*, &c.
 " *aversata* ...from Sept., primrose, nut, gooseberry, *Geum urbanum*, &c.
 " *degeneraria* ...from Aug., ———? will eat knotgrass, bramble, *Cerastium*, *Veronica*
 S. *clathrata*from Oct., saintfoin, lucerne, &c.
 S. *belgiaria*from Aug., heath; may be found at night on heaths, &c.
 F. *pinetaria*bilberry, &c.
 A. *ononaria*rest harrow
 O. *filigrammaria* bilberry and willow
 L. *didymata* ...*Chæropophyllum temulum*, cowslip, &c.
 " *cæsiata*from Sept., bilberry and whortleberry
 " *olivata*from Oct., *Galium mollugo*; very sluggish
 E. *tenuiata*in willow catkins
 " *rectangulata* apple and crab, buds and fl.
 " *debiliata* whortleberry; in curled-up leaves
 T. *variata*Scotch fir, larch, &c.
 " *firmata*larch and Scotch fir
 M. *montanata* ...from Oct., primrose
 C. *quadrifasciaria* hawthorn, white dead nettle, knapweed, &c.
 C. *bilineata*grasses, chickweed, dock; hides under stones, at r. of herbage, &c., by day
 P. *lignata*from Sept., *Galium palustre*, &c.
 C. *russata*from Oct., strawberry, birch, hawthorn, willow, &c.
 " *dotata*currant
 E. *palumbaria* ...from Aug., broom, &c.
 " *lineolata*, s. ...*Galium verum*
 A. *plagiata*from Oct., *Hypericum perforatum*
 B. *glandifera* ...from Sept., lichens, on walls; local. Both *glandifera* and *perla* build a cocoon of silk and earth, mortar, or crumbled stone, like a blister on paint, in which they live, except when they come out to feed, in the night, or early morning, especially in wet weather, when the lichens are soft.
 B. *perla*from Sept., lichens on walls
 L. *conigera*couch grass, & other grasses
 " *lithargyria* ...grasses, chickweed, plantain, &c.
 " *littoralis*from Aug., *Ammophila arundinacea*, on the coast; burrow seven or eight inches in the sand. Will also eat *Carex*
 " *pudorina*grasses, reed
 " *comma*grass, &c.
 " *straminea*coarse grasses and common reed, in damp meadows, and borders of streams
 " *impura*from Oct., *Carex*, & *Dactylis glomerata*, inside the stem
 " *pallens*from October, *Deschampsia cespitosa*
 S. *ulvæ*from Sept., common reed
 N. *neurica* ...in stems of common reed; a small hole is visible in the stem of the plant, tenanted by a larva
 " *lutosa*from Oct., in stems of common reed, near the r.
 X. *rurea*generally on grasses
 " *polyodon* ...low plants
 " *hepatica*, b. ...from Aug., grasses, chickweed, &c.
 A. *australis* ...from Oct., *Cichorium*, *Poa annua*, and other plants
 H. *popularis*grasses, amongst the roots, &c.
 P. *leucophæa* ...from Oct., tufts of grass on commons, and in woods
 C. *Cytherea*from Sept., grass, in dry and stony places
 L. *cespitis*grasses; hides at r. by day
 A. *gemina*from Aug., grasses; hides at r. by day

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- A. unanimitisfrom Sept., grasses, at the base of willows, &c.; hides at r. by day
 " fibrosain fl. stems of yellow flag
 " oculoagrasses, principally Dactylis glomerata, feeding on the undeveloped fl.
 M. strigilisgrasses, and other plants
 " furunculain stems of Festuca
 G. trilineagreater plantain and other plants; hides among the r. by day
 C. alsinesfrom Sept., dock, chickweed, greater plantain. In feeding be careful to give the same food as found on, as the larva is easily injured by shifting its food
 " blandachickweed, &c.
 " cubicularisfrom Sept., in corn ricks, on grass, pulse, and grain
 A. valligerafrom Oct., grasses, r.
 " segetumfrom July, in r. of turnip, &c.
 " corticeafrom Sept., Chenopodium, and other plants
 " agathinaheath
 " porphyrea .. from Aug., heath
 " ravedathistles, dandelion, &c.
 " lucerneharebell, dandelion, &c.
 " Ashworthii ...from Sept., fescue grass, hawkweed, sun cistus, thyme, heath, harebell, &c.
 T. ianthinafrom Aug., broom, chickweed, and other low plants
 " fimbriafrom Oct., primrose and other low plants; also birch, oak, sawlow, broom; concealed by day; found feeding at night
 " interjectadock, mallow, grass, &c.
 " subsequafrom October, low plants
 " Orbonafrom Aug., sawlow buds, when young; afterwards on broom and low plants
 T. pronubafrom Aug., dock, & various other plants [plants
 N. depunctasorrel, and other low
 " augur .. from August, low plants, hawthorn, sawlow, &c.
 " plectalow plants
 " c-nigrumfrom Sept., low plants
 " triangulum ...sallow, bramble, &c.
 " rhomboidea...from Sept., chickweed, sawlow
 " brunneasallow
 " festiva from Aug., violet, sawlow, foxglove, &c.
 " Dahliifrom Sept., low plants; in mild winters s. feeds up without hibernating
 " umbrosafrom Sept., dock, and other low plants
 " baia low plants
 " xanthographa from October, plantain; hides under stones, &c.
 O. lotawillow, sawlow
 " macilenta.....beech, and s. birch
 A. pistacinabuttercup, dock, &c.
 " lunosafrom Oct., grasses, more especially in elevated places; concealed under stones
 X. ceragosallow catkins; later on low plants
 " silagosallow catkins
 " ferruginea ...sallow and aspen buds, wych elm seeds
 C. xerampelina from Dec., on ash; may be found, at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day; very retired and sluggish in its habits, and feeds sparingly on ash shoots and hawthorn [leaves
 T. subtusapoplar; between the
 C. trapezinaoak, birch, hornbeam, &c.; also other caterpillars
 " pyralinaplum, pear, &c.
 P. chihawthorn, sawlow, tea tree, dock, lettuce, hawkweed, Sonchus, &c.

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- D. templi *Heracleum sphondylium*, inside the stem and r.
 E. lutulenta from Oct., *Lithospermum arvense*, and other low plants
 " viminalis *sallow*
 " lichenea from Nov., *ragwort* and other low plants, on the coast
 P. meticulosa ... from Nov., *groundsel*, and various low plants
 " empyrea from Nov., *pilewort*, &c.
 A. herbida from Aug., *dock*, and other low plants
 " occulta *primrose*, *plantain*, and other low plants; can only be found in the evening
 " nebulosa from Sept., *sallow*, *hawthorn*, *birch*, &c.
 " tinctoria from Sept., *grass*, and low plants; also *birch*, and other trees
 " advena from Aug., various plants
 C. vetusta *poplar*, and various meadow and marsh plants
 " exoleta *scabious*, *campion*, *rest harrow*, *dock*, *Eryngium maritimum*, *turnip*, *asparagus*, &c.
 X. furcifera *alder*, *birch*
 A. myrtilli, s. ... from Aug., *heath*; gently clear away the bottom of the heath, and shake it into the net
 P. chrysis from July, *burdock*, *thistle*, *nettle*, *dead nettle*, &c.
 " iota *nettle*, *dead nettle*, *honeysuckle*, *groundsel*, &c.
 " gamma *nettle*, *hop*, and most low plants [plants
 M. typica from Sept., low
 " maura from Sept., *ivy*, *dock*, *chickweed*, &c.
 C. sponsa *oak*
 H. probscidalis from July, *nettle*
 H. derivalis from Aug., among *dead oak leaves*
 " barbalis from Sept., *birch catkins*
 H. tarsipennis from Aug., *raspberry?* Will eat *knotgrass* and *sallow*
 " cribralis from Aug., *sallow*, *Carex sylvatica*, and *Luzula pilosa*
 A. flexula *lichen*
 P. farinalis *straw*, *corn*, &c.
 A. pinguinalis ... *greasy horse cloths*, rubbish in houses, &c.
 E. cingulalis from Sept., *Salvia pratensis*
 A. nemoralis ... *Chrysosplenium alternifolium*
 C. lennialis *aquatic*, in a case filled with air, feeding beneath the leaves (fronds) of *duckweed*
 P. stratiotialis ... *aquatic*, on *Callitriche verna*, *Stratiotes aloides*, &c.
 H. nymphæalis *aquatic*, in a flat case, under the leaves of *yellow water lily*, and *Potamogeton pectinatus*
 " stagnalis *aquatic*, on *Potamogeton*
 B. terrealis from Aug., *golden rod*, fl.
 " asinalis from Oct., *madder*
 E. crocealis *Inula dysenterica*, between the leaves
 S. olivialis *ground ivy*, and other low plants, in a web under the leaves
 " prunalis ... *sloe*, and low plants
 S. ambigualis ... *moss*
 " mercurella ... the mosses *Hypnum elegans* and *Jungermannia dilatata*
 " resinea the lichens on *ash*, *Stigoneura mammillosa*, and *Oscillatoria autumnalis*
 C. hortuellus ... *moss*
 C. phragmitellus ... from Oct., *reed*
 A. lotella in the stem and r. of *Festuca ovina*, and *Aira canescens*, in a silken tube
 P. abietella from Sept., young shoots of *Scotch fir*, and decayed wood and cones

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- P. palumbella ...from Sept., polygala
 T. Fosterana ...ivy, honeysuckle, &c.
 P. Lecheana ...sallow, willow, honey-
 suckle, oak, &c.
 P. capræana.....sallow
 " gentianafrom Nov., in teazel
 heads
 S. roboranain rose shoots
 S. conchana? ...Galium, alder, &c.
 E. mygdana ...in shoots of Myrica
 and Vaccinium, on northern
 moors
 " rufanasun cistus
 " arbutanaVaccinium, twisted
 shoots
 S. subjectana ...various plants
 " virgaureana ...various plants
 B. lanceolana ...in stems of rushes
 P. unguicaria ...heath
 " uncanaMyrica gale, heath
 " lundanatrefoils, and vetches
 G. ramanabuds of birch
 P. immundana...in leaves of birch,
 and alder
 " Demarniana catkins of birch
 H. crucianain sawlow shoots
 P. bilunanacatkins of birch and
 alder
 E. cirsianafrom Sept., in thistle
 and knapweed stems, in woods
 " Pfulgianafrom Sept., in thistle
 and knapweed stems, in open
 places
 " Brunnichiana in stems of coltsfoot
 " turbidanar. of butter burr (?)
 " foenianafrom Oct., in r. of
 Artemisia
 " grandævana...in r. of Petasites and
 Tussilago
 S. Weeberana ...from Oct., under
 bark of fruit trees
 C. strobilana ...in fir cones
 " hercyniana ...spruce fir
 " ustomaculana Vaccinium
 R. turionana.....in shoots of Scotch
 fir
 " pinivorana ...in shoots of Scotch
 fir
 S. coniferana ...under bark of Scotch
 fir
- S. Leplastrierana in stems of cabbage
 D. Petiverana ...r. of Achillea mille-
 folium
 " simpliciana ...in r. of Artemisia
 vulgaris
 " acuminatana ox eye
 " consortana ...shoots of chrysan-
 themum
 C. nimhanaunder moss, and
 bark of beech
 X. Fabriciana ...nettle, pellitory, &c.
 E. udanain stems of Alisma
 plantago
 " rupicolana ...hemp agrimony (?)
 " roseanafrom Oct., in seeds
 of teazel
 X. Zoeganain r. of Scabiosa
 calumbaria, Centaurea nigra, &c.
 C. tesseranafrom Sept., in r. of
 Picris hieracioides
 T. pseudo-bombycella from October,
 lichen on oak, beech, &c., in a
 long, slender case
 P. opacellain a case on fallen
 fir logs, probably feeds on lichen,
 grass, heath, furze, &c.
 S. triquetrella ...on old palings, on
 moors, marshes, &c., in a trian-
 gular case
 P. Verhuellega in the indusia of
 Asplenium ruta-mutaria and
 hartstongue
 D. marginepunctella in a case on
 trees, &c.
 X. melanella ...on lichens, in a case
 on trees, and palings
 S. carpinetella...fungi on rotten wood
 " cloacellarotten wood
 T. tapetzella.....woollen cloth, &c.
 " alhipunctella...rotten sticks
 " pellationella ...in carpets, cloth,
 feathers, &c.
 " ganomella ...from Oct., in birds'
 nests
 " biselliella.....from Oct., in bird
 skins, hair seating, &c.
 " perochraceella...ants' nests
 L. prælatella ...from Sept., in a flat
 case on underside of wild straw-
 berry

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- L. rubiellain shoots of rasp-
berry
- I. maschilella ...from June, rose, &c.
- " capitellain the shoots of cur-
rant bushes
- M. Allionella ...honeysuckle
- " fastuosella ...nut
- A. viridella (?)...oak
- N. scabiosellus...from July, various
low plants
- " cupriacella .. from July, Sedum
reflexum, S. album, &c.
- E. Messingella Cardamine amara
- P. porrectella ...Barbara vulgaris,
Hesperis matronalis, in a web
on the underside of the leaves
- H. harpellahoneysuckle
- D. assimilella ...broom, between
united twigs
- G. velocella ... Rumex acetosella,
towards the r.
- " diffinellaRumex acetosella,
towards the r.
- " arundinetella Carex riparia
- " affinellaunder moss on old
walls
- " domesticella in moss on old walls
- " vulgellahawthorn, between
united leaves
- " tricolorella ..in seeds and shoots
of Stellaria
- " instabilella ...Plantago maritima
- " Mouffetella ...in shoots of honey-
suckle
- " tenebrella ...from Sept., in r. and
lower stem of Rumex acetosella
- " anthyllidella shoots of Anthyllis
- P. neuropterella from Oct., in heads
of Cirsium acaule
- M. ustulella from August, nut,
birch, lime, maple, hornbeam,
&c.
- P. bicostellafrom Nov., Erica
cinerea
- H. bracteella ...in decayed wood
- D. sulphurella ...in rotten wood
- CE. fusco-aurella in dead sticks
- " pseudo-spretella from Oct., various
kinds of dried fruit, dried peas,
and other seeds; also hams
- CE. flavifrontella...from Sept., in a
case on beech
- B. grandipennella...furze
- " fusco-æneella...among sun cistus
- " chenopodiella...Chenopodium and
Atriplex
- R. Erxlebenella Tilia
- G. Haworthella Eriophorum, seeds
- " schænicolella in seed-heads of
Schænus nigricans
- D. ocnerosomella in dried stems of
Echium vulgare
- A. ephippella ...in shoots of wild
cherry
- " glaucinella ...in bark of oak, horse
chesnut, &c.
- " abdominella...in needles of juniper
- " pygmæella ...in willow catkins
- " Gædartaella ...in bark of alder,
birch, &c.
- " Brochella.....birch shoots
- " arceuthinella in shoots of juniper
- " aurulentella...juniper, in the leaves
- C. farinatella ...in leaves of Scotch
fir
- O. pinariella... Scotch fir, in the
leaves
- G. tringipennella in plantain
- " auroguttella.. willow herb, and
hypericum
- " ononiellarest harrow, and
clover
- C. lixellagrasses
- " pyrrhulipennella from Oct., heath
- " discordella ...from Oct., Lotus
corniculatus
- " genistæcolella from Oct., Genista
anglica
- " lineolellaBallota nigra
- " juncicolella ...from Oct., heath
- " cæspitiella...from Sept., rushes,
seeds
- " laricellafrom Sept., larch
- " albitarsella ...from Nov., Origa-
num and Glechoma
- " gryphipennella from Sept., rose
- " vitisellafrom Nov., whortle-
berry
- " viminetella ...from Sept., willow
and osier

LARVÆ]

APRIL

- C. solitariella ...from Oct., *Stellaria holostea*
 L. paludicolella *Epilobium hirsutum*
 " miscella*sun cistus*
 C. Linneella.....from Nov., under bark of lime trees
 " Schrankella...*Epilobium alsinifolium*
 A. æratella ... from Oct., in galls on knotgrass
 S. Brünnichella *Melissaclinopodium*
 E. Gleichenella in *Luzula* and *Carex*
 " magnificella...*Luzula pilosa*
 " apicipunctella from Oct., in *Aira*
 " albifrontella...in many grasses
 " luticomella ...in stems of *Dactylis glomerata*
 " poella*Poa aquatica*
 " kilmunella ...*Carex*
 " cinereopunctella from Sept., in *Carex glauca* [pilosa
 " trapeziella ...from Oct., in *Luzula*
 " Gregsonella...in a *Poa*
 " nigrella*Poa trivialis*, &c.
 " subnigrella ...*Bromus erectus*
 " perplexella ...in *Aira cespitosa*
 " Bedellella ...*Avena pratensis*
 " zonariella in *Aira cespitosa*
 " gangabella ...from Nov., *Dactylis glomerata*
 " tæniatella.....from Sept., in *Brachypodium sylvaticum*
 " Megerlella ...from Sept., in *Brachypodium*, *Bromus*, *Aira*, &c.
 E. cerussellain reed
 " biatomella ...in *Carex glauca*
 " rufocinerella in *Holcus mollis*
 " cygnipennella *Dactylis glomerata*, and other grasses
 " paludum, e....*Carex intermedia*, *C. paniculata*, and *C. paludosa*
 " serricornella...*Carex*
 T. dodonæella .. from Oct., in oak
 L. lantanella ...from Sept., *Viburnum lantana*
 " vacciniella ...in whortleberry
 " Messaniella ...in oak, evergreen oak, chestnut, hornbeam
 " trifasciella ...in honeysuckle
 " scabiosæcolella in r. leaves of *Scabiosa calumbaria*
 C. Spartifoliella under bark of broom
 B. aurimaculella on *Chrysanthemum* and ox eye
 " cristatella ...from Sept., on yarrow
 " artemisiella ...*Artemisia campestris*, and yarrow
 N. Weaverella...from Oct., in whortleberry
 T. immundella...beneath bark of broom
 P. trigonodactylus in coltsfoot stems
 " plagiodactylus...*Scabiosa*, and *Veronica chamædrys*
 " osteodactylus from Sept., golden rod
 " ariduson the Continent, on fl.-buds of *Coris monspeliensis*

PUPÆ]

A new "spurt" will be given to the operations of the pupæ hunter, now that he begins to find species which have only just changed. A glance down the list will show that he may, by diligent searching, find the chrysalids of some of the early summer butterflies, enabling him to secure them in all their glory, ere they

"hover on the flowers—aerial things,
 With little rainbows flickering in their wings."

- P. Machaon.....on stems of *Peucedanum palustre*; in fens
 L. sinapis.....from Oct., on stems of *Vicia cracca*, and *Orobanchus tuberosus*; in woods
 P. brassicæ ... }
 " rapæ..... } on palings, walls, &c.
 " napi }
 A. cardamines ...on stems of grass, &c.

PUPÆ]

APRIL

- A. Euphrosyne.....suspended by the tail
among dog violet, &c.
- M. Artemissuspended under a
leaf, among scabious, plantain,
&c., in damp meadows
- " Cinxia, e.suspended among
plantain, &c.
- S. Ægeria, b.on grass stems, &c.
- L. Alsusamong Anthyllis vul-
neraria
- S. ocellatussub., at willows,
poplars, &c.
- " populisub., at poplars,
willow, &c. [beech
- " tiliasub., at elm, lime,
- C. ligniperdaat various trees, spun
up, under bark; s. sub.
- L. asellusspun up, on a leaf
- A. mendicaunder moss on trees
bordering ditches
- " lubricepeda } spun up, on trees,
" menthrasti } palings, &c.
- " urticaunder moss on trees
- O. pudibundain dead leaves, under
moss, &c.
- B. rubialong cocoon, among
coarse grass, &c.; s. 2 years in
pupa
- S. carpinicocoon among leaves,
heath, grass, &c.; s. 2 years in
pupa
- S. lunariafrom Aug., at sloe,
oak, nut, &c.
- O. bidentatafrom Sept., under
moss, on various trees
- A. betulariafrom Oct., sub., at
oak, elm, birch, &c.
- H. abruptaria .. from Sept., spun up,
on twigs, or branches
- T. consonaria ...from Oct., under
moss, at r. of beech, &c.
- " punctulata ...from Oct., under
moss, on birch and alder, or in
bark crevices
- I. lacteariaspun up, among
leaves of oak, and birch
- N. viridatabetween united
leaves of hawthorn and bramble
- E. poratafastened to leaf of
oak
- E. punctariafastened to leaf of
oak, or birch
- " trilineariafrom Sept., fastened
to leaf of beech
- " pendularia ...from Aug., fastened
to leaf of birch
- E. heparatafrom Oct., among
moss, &c., on alder
- C. exanthemaria . spun up, under
leaves of willow and alder
- C. temeratafrom Sept., woods,
&c., near sloe, wild cherry, and
probably buckthorn
- M. lituratafrom Oct., in open
places, and on the margins of
fir woods, at 1 in. to 2 in. deep,
rarely within 2 ft. of the tree
- N. pulveraria ...from September, in
withered willow leaves, &c.
- F. carbonaria .. from Aug., among
dead leaves of willow, and birch
- L. adustatafrom Sept., in a
slight cocoon just beneath the
surface, among spindle
- E. albulatafrom Oct., within
the spun-up sepals of yellow
rattle
- " decolorata ...from July, about
Lychnis dioica
- E. venosatafrom July, about
Silene, and Lychnis
- " consignata ...from Sept., probably
under moss, and loose bark, in
apple orchards
- " pulchellata ...from Sept., among
the dead fl. of foxglove
- " isogrammata about Clematis vi-
talba
- " fraxinata from end of Aug.,
on ash, under moss, and loose
bark
- " nanataabout heath
- " campanulata from Sept., sub.,
about Campanuleæ
- " minutataabout heath
- " assimilatafrom September, in
crevices about currant, and
hop
- " exiguafrom Aug., about
oak, &c.

LARVÆ]

APRIL

- Y. ruberataunder loose bark of
sallow, alder, &c.
- M. ocellataamong Galium; spun
up, near the ground
- " subtristatafrom Sept., sub.,
near Galium
- " galiatasub., near Galium
- A. sinuatain earthen cocoon;
on the ground, among Galium
- C. munitataspun up, on moss,
on tree trunks
- " unidentariaamong bedstraw, &
sweet woodruff, in a slight web,
on the surface of the ground
- " sagittataspun up, about Tha-
lictrum, or on the ground near;
in fens
- " suffumataamong Galium and
ragwort
- E. lineolatacocoon attached to
Galium verum, on coast sand-
hills, below the surface
- C. obliquariafrom Aug., among
broom
- P. hamulaoak, birch; between
united leaves
- D. bicuspisspun up, on birch
trunks in the S., alder in the N.
- " furculaspun up, on trunk of
willow or willow
- " bifidaspun up, on trunk of
poplars
- " vinulaspun up, on trunk of
willows, poplars, and willow,
three or four feet from the ground
- S. fagispun up, among leaves
of beech, oak, elm, birch; s. at r.
- P. bucephalasub., at various trees
- C. reclusaspun up, among dead
leaves of willows, poplars,
willows
- P. palpinaat willows, and pop-
lars, on edges of streams, or
under sods near
- N. camelinasub., at various trees
- " cucullinasub., at maple and
sycamore
- " carmelitasub., at birch
- " dictæaat poplars and wil-
lows, or under sods near
- N. dictæoidessub., at birch
- " dromedariussub., at birch, alder,
nut
- " ziczacsub., at poplars,
sallow, willows
- " trepidasub., at oak, in a
tough cocoon
- " Chaoniasub., at oak
- " Dodoneasub., at oak and
birch
- T. batisnear bramble and
wild raspberry
- C. duplarisbetween united birch
leaves
- " fluctuosaamong birch leaves
- D. Orionat birch, and oak,
in a cocoon of gnawed bark,
or rotten wood
- A. tridensspun up, in crevices
of bark, at hawthorn, sloe, rose,
willow, willow, mountain ash
- " psiin bark crevices of
various trees
- " leporinain excavations in the
bark of birch, poplar, alder,
sallow
- " acerisspun up, among
fallen leaves, and under loose
bark of sycamore, horse-chest-
nut, maple, birch, and s. oak
- " megacephalaunder loose bark of
poplar
- " strigosaamong dead leaves
of hawthorn, or rubbish, or de-
cayed wood; s. sub.
- " alnibetween leaves of
various trees, or inside bramble
sticks
- " ligustrispun up, under moss,
stones, &c., near ash and privet;
also sub.; also found under the
top stones of walls against the
tree
- " rumicisspun up, in crevices
of trees, palings, walls, &c.
- " menyanthisspun up, near bil-
berry, heath, sweet gale, &c.
- A. putrissub., at elm
- D. pinastriin a cocoon on the
ground, among dock, sorrel, &c.

PUPÆ]

APRIL

- M. albicolonsub., near Atriplex, Chenopodium, lettuce, &c.
 A. segetum, s.sub., among Cruciferæ, grass, &c.
 X. rureaunder moss, on stumps
 A. unanimitisunder bark of willows, in damp places, and among decayed willow wood
 C. Morpheusspun up, in a leaf, or an earthen cocoon, attached to food plant
 R. tenebrosaamong violets, and other low plants; a little beneath the surface
 A. Putafrom Jan., near r. of dandelion, lettuce, carrots
 D. carpophagasub., near Silene, and Lychnis, on the coast; found by raking sandhills
 " capsophilafrom June, a constant succession, sub., about Silene maritima, on the coast
 " capsicolafrom August, sub., near Lychnis
 " cæsiafrom August, about Silene maritima, on the coast
 H. serenasub., near Sonchus, and lettuce
 " adustasub., near sallow
 " glaucasub., near sallow, and birch
 " oleraceasub., near elm, nettle, dock, &c., also in kitchen gardens
 H. thalassinasub., near honey-suckle, sallow, broom, &c.
 C. verbasci } sub., in earthen cocoon, near mullein and figwort
 " scrophulariæ } s. 2 yrs. in pupa
 " lychnitisin earthen cocoon, near white and black mullein; s. 2 yrs. in pupa
 " asterisnear golden rod, &c.; s. 2 yrs. in pupa
 " gnaphaliinear golden rod
 " absynthiinear wormwood
 " umbraticasub., near Sonchus, &c.
 H. marginatasub., near Ononis procurrens
 " dipsaceaamong melilot, and probably Silene otites, and Linaria
 A. myrtillispun up, in heath
 E. venustulaat r. of Tormentilla reptans, and grass [ground
 B. argentulaamong grass, on the
 A. urticæspun up, among nettle leaves
 " triplasiaspun up, among nettle leaves, hop, &c.
 P. æneaamong Polygala vulgaris
 H. barbalis, e.in a loose cocoon, among oak, and birch
 E. sambucalisspun up, in crevices, in palings, walls, &c., near elder
 G. canellaamong Salsola kali

IMAGOS]

With the lengthening days, and warmer sunshine, the number of insects on the wing continues to increase; and amongst those which are due this month are several somewhat rare species. The salallows constitute an irresistible attraction on mild evenings, when we are sure to find that many moths have

"from far and nigh

Sped to the lure."

The hibernating butterflies, as well as some which have freshly emerged, are also occasionally attracted to these blossoms in the daytime, when we are cheered by

"amber sunbeams slanting down the vale."

IMAGOS]

APRIL

But the only rare species is *V. Antiopa*, which, however, is but seldom seen in the spring. Eggs may sometimes be obtained from the captured ♀ at this and other periods of the year. The freshly emerged ♀ of many species, particularly the *Bombyces*, can be used to attract the ♂, and large numbers are sometimes thereby taken. Beating thatch is a mode of capture often resorted to, and at this season many moths may be beaten out, particularly hibernating *Geometræ*. As the season advances,

"and vernal airs breathe mild,"

large numbers of *Tineæ* may be thus captured. *Depressariæ*, and some other species, seem much commoner now than before hibernation.

In the following list is given the species ordinarily to be found this month, including those which have hibernated, but which have not generally before put in an earlier appearance in the new year.

- | | |
|--|---|
| <i>L. sinapis</i> , e. ...woods; does not travel quietly if boxed | <i>H. abruptaria</i> , e. on palings, trees, &c., and in gardens; comes to l. |
| <i>P. brassicæ</i> , e. ...gardens, &c. | <i>T. crepuscularia</i> ...on trees |
| " <i>rapæ</i>.....gardens, &c. | " <i>biundularia</i> ...on trees and palings |
| " <i>napi</i> .....gardens, &c. | <i>E. pendularia</i> ...beaten from trees |
| <i>A. cardamines</i> ...fields, &c. | <i>C. temerata</i> , e. ...among sloe, &c. |
| <i>S. Ægeria</i> , e. ...woods and shady lanes | <i>A. pictaria</i> .....at sloe fl. |
| <i>T. rubi</i> , m. ....woods, &c. | <i>N. pulveraria</i> , e. |
| <i>P. Phlæas</i> .....fields and lanes, coast sandhills, &c. | <i>F. carbonaria</i> , e. |
| <i>L. argiolus</i> , m....amongst holly, and at fl. | <i>A. æscularia</i>.....on trees, &c. |
| <i>A. mendica</i> , e.... | <i>L. multistrigaria</i> , may be found towards the bottom of palings, on the grass, &c., being turned away |
| <i>D. coryli</i> .....beech woods; may be beaten | <i>E. helveticata</i> ...this species s. appears much earlier. Most of the genus fly just before dusk |
| <i>E. lanestris</i> , b. ....at rest on hawthorn, &c. | " <i>irriguata</i> .....on birch trunks |
| <i>L. ilicifolia</i> .....at rest on moors? | " <i>pimpinellata</i> |
| <i>E. versicolora</i> ...♂ flies by day; ♀ generally not till evening. A bred ♀ in a roomy box is useful for attracting the ♂ of most bombyces | " <i>vulgata</i> |
| <i>S. carpini</i> .....heaths and open places; fly in the sunshine | " <i>dodoneata</i> ...flies in the early morning sunshine |
| <i>R. cratægata</i> ...in hedges, &c. | " <i>abbreviata</i> ... |
| <i>S. illunaria</i> , b.... | " <i>pumilata</i> |
| " <i>lunaria</i> .....woods; comes to l. | " <i>coronata</i> .....on trees and palings |
| " <i>illustraria</i> , e....woods | <i>L. hexapterata</i> ...woods |
| <i>O. bidentata</i>.....rests on tree trunks | " <i>lobulata</i> .....on Scotch fir trunks, and gate posts, &c. |
| <i>B. hirtaria</i>.....in the squares of London | " <i>polycommata</i> |
| <i>A. prodromaria</i> , b. at rest on trees, &c. | <i>T. simulata</i> |
| | <i>M. fluctuata</i> .....on walls, palings, and in gardens |
| | <i>A. badiata</i> .....at fallows, and flying over hedges at dusk |

IMAGOS]

APRIL

- A. derivata
 P. polygrammata, b. damp meadows; very local
 " suffumata ...flies at dusk
 P. lacertulabeaten from birch
 D. unguicula, e.among beech; flies in the day time
 D. bicuspis ...at rest on tree trunks
 P. nubeculosa ...birch woods in Perthshire
 C. curtula
 N. carmelitaon birch trunks, and palings near. Flies in the sunshine; may be taken at fallows; and is attracted by puddles
 " trepida, e. ...on oaks
 " Chaonia, e. ...
 C. ridensat l., at sugar, and at rest on tree trunks
 X. conspicularis, at rest on trees; also beaten, and has been taken at sugar
 T. piniperdaat fallows, and at rest on fir trees
 T. gothicaat fallows. The notes under March in reference to this genus also apply to April. Laburnum, and other early fl. also attract the genus
 " gothacinaa var. of gothica, which is found in Finland and Lapland, and has been taken in Morayshire, &c.
 " leucographa...
 " rubricosa
 " instabilisremarkable vars. of this species, and also of stabilis often appear
 " opima
 " populeti
 " stabilis
 " gracilis
 " miniosa
 " munda
 " cruda
 V. oleagina
 P. meticulosa. This species occurs all the summer, there appearing to be, as is the case with several other common species, a suc-
 cession of broods, but it is most abundant in Sept. and Oct.
 X. lithorizaat fallows, and on trees, walls, &c.
 C. verbasci
 " chamomillæ, s. at rest, on rails, &c.
 B. parthenias ...in and near birch woods; flies on sunny mornings round fallows, &c.
 " nothaon aspens, flies in the sunshine round fallows, &c.
 P. gamma, to Oct. } fly in the sun-
 P. ænea, e. } shine, & hover over fl.
 S. augusteafrom Aug.
 S. Revayana ...from Sept., woods
 L. literanaon oak trunks
 " niveanaat fallows
 P. mixtanafrom July, moors
 S. pauperana ...among wild rose
 C. musculana ...hedges
 O. rusticanamoors, fens, mosses
 P. comptanachalk downs, &c.
 P. tetraquetrana, among birch
 " immundana ...among birch and alder
 " crenanafrom Sept.; most heaths in the N.
 C. splendulana, on oak trunks
 " pygmæana, b. among spruce
 " vaccinina ...
 H. fimbriana ...oak woods, in the S.
 T. hyemanaoak woods
 L. salicellaamong dog rose ?
 D. fagellaon trees
 E. avellanella ...
 " Steinkellneriella
 S. triquetrella ...moors in the N.
 " inconspicua, b. at rest on palings, &c.
 I. Zinckenella, e. among birch.
 M. purpurella ...among birch and Scotch fir; may be obtained by sweeping the twigs; most of the genus fly on sunny afternoons, and at other times may be shaken from trees
 " salopiella ...among birch
 " semipurpurella, among birch

IMAGOS]

APRIL

- M. unimaculella among birch, and
 Scotch fir
 " Sparmannella, among birch
 " subpurpurella, among oak
 " fastuosella ...among nut
 A. cuprella, e. ...at willows, flying in
 the sunshine
 S. comptella, e. on hedges
 " pyrellaamong hawthorn
 hedges
 Y. vigintipunctella, e. among Sedum
 telephium
 P. xylostellaamong Cruciferae
 Dalellaon moors
 H. radiatellafrom Aug.
 P. caudellafrom Sept., on pa-
 lings, &c., flies over spindle
 bushes after dark
 D. arenellafrom Aug.
 " Alstræmeriella, from Aug.
 " cinifionella ...Rannoch
 " capreolella ...from Aug.
 " conterminella, from Aug.
 " applanella ...from July, flying
 over hedges
 " chærophyllyvorea, from Aug.
 G. velocella, e. ...
 " ericetella, e. ...moors and heaths
 " juncetella
 D. sulphurella ...
 B. incongruella ..on heathsand moors,
 hides among withered sprigs of
 heath when disturbed
 A. autumnitella, from Aug.
 G. fuscoviridella
 T. sericiella
 O. pinariella, h.? among Scotch fir
 Z. hepariella ...from Aug.
 G. stigmatella ...from Aug.
 " stramineella...from Aug.
 " populella ...from Sept.
 " phasianipennella, from Sept.
 C. cuculipennella, from Sept.
 " citrinellafrom Oct.
 O. anglicella, e. among hawthorn
 and sloe
 C. chærophyllella, from Oct.
 L. decorellafrom Oct.
 C. flavicapitella..among hawthorn
 E. rufocinerella..among grass
 L. Bremiella.....
 " alnifoliella ...

The following hibernated species may also be met with this month, but their condition is often so "seedy" that they are of little value as specimens, unless eggs are desired :—

C. Edusa, C. Hyale, V. c-album, V. urticae, V. polychloros, V. Antiopa, V. Io, V. Atalanta, V. cardui, M. stellatarum, E. fasciaria, T. variata, C. fluviata, S. dubitata, C. psitticata, C. miata, C. silaceata, A. auricoma, L. lithargyria? A. puta, A. suffusa, A. saucia, C. vaccini, C. spadicea, C. erythrocephala? S. satellitia, D. rubiginea, H. croceago, D. templi, C. vetusta, C. exoleta, X. conformis, X. rhizolitha, X. semibrunnea, X. petrificata, G. libatrix, H. rostralis, E. coarctalis (angustea) E. ocella, P. crenana, P. caudella, D. pallorella, D. propinquella, D. subpropinquella, D. alstræmeriella, D. vaccinella, L. epilobiella, L. clerckella, P. suffusella, P. salignella, P. pterodactylus, A. polydactyla.

[illegible]

OVA]

MAY

the first place, and it is often eaten by species in confinement in preference to the natural food-plant. Hawthorn, Lotus (trefoil), and Glechoma (ground ivy), sallow, and sloe are also useful. For the Noctuæ the following plants have been found acceptable—sallow, birch, plum, hawthorn, plantain, dock, dandelion, lettuce, clover, borage, goosefoot. When the food-plant is known, but cannot be procured, plants of the same natural order may be pretty safely substituted, and many will eat hawthorn or knotgrass when their natural food is not within reach. It is here, as in working out other branches of entomology, that a knowledge of botany is desirable; and the collector should not fail to make it his business to learn "all about" plants, as well as his favourite insects. If he does not, he will constantly find his progress impeded, and his ignorance upbraiding him. He should do this not by merely going through a cramming course at a Science School, however useful that may be as a groundwork for technical knowledge, but by super-adding to it the work of field botany, and mastering the mysteries of classification, and the best systems of natural arrangement.

- L. sinapison *Vicia cracca*, and *Orobustuberosus*; long, standing on one end, yellow-white
- P. brassicæon cabbage, &c.; in groups; conical, ridged, yellow
- " rapæon *Cruciferae*, mignonette, and other garden plants; singly on the underside of a leaf
- " napion *Cruciferae*
- " Daplidiceon wild mignonette, and weld
- A. cardamines, e. on *Cardamine*, *Erysimum*, &c., upon the fl.-stalks, and base of the fl.; bright orange
- C. Edusaon white clover, lucerne, &c. This species also oviposits in June, and s. in July and August, and even in September
- " Hyaleon clover, melilot
- V. c-albumon nettle, hop, elm, sloe, currant
- " urticæon nettle; in batches upon underside of leaf; barrel-shaped, fluted, green
- " polychloroson elm, s. willow and poplar; in regular batches; globular, glassy, brownish
- " Antiopaon willow, birch, poplar, nettle
- " Ioon nettle; green
- " Atalantaon nettle, singly; green
- S. Ægeriaon grasses; singly
- " Megæra, e.on grasses
- C. Pamphiluson *Nardus stricta*, and probably other grasses
- T. rubion bramble, broom, Genista
- L. Alexis, e.on rest-harrow, trefoil, &c.
- " Argiolus, b.on holly, and probably buckthorn, upon the fl.-stalks, rather close to the fl.; at first green, changing to white
- S. alveoluson bramble and wild raspberry; singly, pale green
- T. Tageson *Lotus corniculatus*
- M. stellatarumon *Galium mollugo*; upon underside of leaf of plants growing on old walls
- S. populion poplar, sallow, willow; laid singly upon the leaves; oval, green
- A. fuliginosaon dock, nettle, plantain, &c.; in regular batches upon the leaves, as do the three following species
- " mendicaon sloe, plantain, &c.
- " lubricipedaon various low plants; s. elder and other trees
- " menthrastion various low plants
- Ö. pudibundaon hop, oak, &c.; in regular batches

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carrying out these arrangements, not only should every means be afforded the larva to make its cocoon, or to otherwise pass into the pupal state, but it should be remembered that in a few weeks the perfect insect will emerge, and provision must be made for its successful advent in the winged state.

Besides the hibernated larvæ, many will be found in various stages of growth which have only emerged from the egg state in the earlier spring months. Some of these may be rather small, especially if the season has been backward; but their careful feeding up will have its reward in their being found to be seldom infected with parasites, to which older larvæ are more liable. In carrying out these breeding arrangements our object should not only be to carry the operation successfully through, but to learn the habits of the various species as they would behave in a state of nature.

Many larvæ vary in appearance according to their age. In some species, when one of the regular changes of skin takes place, the appearance of the insect is completely altered. Many young larvæ are thus unknown, which, when mature, are recognised as old friends. Many noctuæ are more gaily dressed in youth than in maturity. Among the other kinds which are sober in colour in the earlier stage, but array themselves gorgeously in their last moult, are *L. Ægon*, *C. flavicornis*, *A. australis*, *T. rubricosa*, *E. nigra*, *C. exoleta*.

The cannibal larvæ should be carefully looked for when beating, and be "left out in the cold" if not wanted, or boxed separately if they are, or they will make short work of any larva that happens to come in their way.

A useful article to the larva collector is a bag, made of canvas or linen, about two feet deep by one foot wide. This would hold a large number of larvæ, with sprays of their food-plants, and when the mouth is tied the whole may easily be carried. If time presses on reaching home, the larvæ may be left hung up in their bag for a day or two, in a cool place, without injury. If the whole of the larvæ are turned out into a pan on reaching home, and covered with muslin, the case bearers will crawl up and attach themselves thereto.

The reader may again be reminded that night searching for larvæ, especially on low plants, often yields many species. They are sometimes found crawling up or down trees. Just before sunset is the best time for beating, or sweeping, especially on warm evenings in the early summer. On favourable evenings towards the end of May upon a heath, or moor, many species may be sometimes met with in abundance. Lettuce leaves have been recommended as a bait to catch larvæ, scattering the leaves over the ground some time before searching.

The long list of larvæ which comes under this month will furnish the collector with ample choice of material upon which to work.

P. cratægifrom August, haw-
thorn, sloe, and orchard trees
A. Paphiafrom August, dog,
and sweet violet, in woods, &c.

A. Aglaiafrom August, dog,
and sweet violet, and wild
heartsease; on hill-sides, and
sea-side sandhills

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- A. Niobefrom August, dog,
and sweet violet
" Adippe.....from August, dog,
and sweet violet; in woods,
&c.
" Latonafrom August, dog,
and sweet violet, and wild
heartsease
" Euphrosyne, b. from July, dog, and
sweet violet; feeds in the sun-
shine; hides on the underside of
primrose, and other leaves
" Selene, b. ...from July, dog, and
sweet violet
M. Cinxiafrom July, Plantago
lanceolata
" Athaliafrom August, Plan-
tago lanceolata, foxglove, wild
germander
V. c-album, e. ...nettle, hop, elm,
sloe, currant
" polychloros ...elm, Salix vitelina,
S. viminalis, S. caprea, Populus
tremula, Pyrus aria, and fruit
trees
L. sibyllafrom August, honey-
suckle; prefers the plants which
climb over bushes, and up the
trunks of oaks
A. Irisfrom August, sal-
low, and poplar. Gripstoot tight-
ly to shake off. Often hides in
crevices of bark of trees, or
under loose pieces
A. Galatea, b. ...from August, timo-
thy, and other grasses; may be
obtained by sweeping. Some
of the larvæ are green, and
some are pale drab
E. Epiphron.....from August, grasses
in mountain bogs
" Medeafrom Sept., moor-
land poa, and other grasses
H. Semele.....from Aug., quaking
grass, couch grass, &c., on dry
hill-sides, and sea-side sand-
hills
" Ianira, e.from Aug., meadow
grasses
H. hyperanthus...from Aug., annual
meadow, millet, and other grass-
es; in and near woods; may
be found at dusk, or at night,
feeding on the blades of grass,
in wood ridings
C. Davusfrom Aug., Rhy-
chospora alba; lives exposed
Pamphilus ...grasses
T. quercusoak; most abun-
dant in the upper branches. In
confinement s. eats the changing
pupa
" w-albumwytych elm
" prunisloe
" betulæsloe, birch
P. Phlæasfrom Oct., sorrel,
dock, ragwort
L. ÆgonOrnithopus perpu-
sillus
" Artaxerxes (var.) b., sun cistus;
hides on the underside of the
leaves
" Adonis, b. ...from Oct., Hippo-
crepis comosa, &c.
" Corydonfrom Oct., Hippo-
crepis comosa, &c.
P. sylvanus, b. ...grasses, in rolled-up
blades
S. myopæformis in stems of apple,
pear, plum, hawthorn; in old
gardens
" formicæformis from Sept., in withy
stems; may be found in the old
stumps
" chrysidiformis inside r. of sorrel
and dock; at Folkestone and
Eastbourne, and probably other
places on the S. and E. coasts;
supposed to be 2 years feeding
" cynipiformis...in the bark of un-
healthy-looking oaks, and in old
stumps
" ichneumoniformis in the stems of
stinking hellebore, growing on
cliffs, under-cliffs, and land-
slips, on the coast
" bembeciformis from Sept., in the
stems of poplar, and willow, and
s. in the stumps of osiers

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M. arundinis, b. in stems of common reed

Z. æsculifrom Aug., in the wood of ash, elm, or pear trees; s. in hawthorn, lime, or box. The larvæ feed in the interior of the smaller branches, and are generally found in the upper branches of the highest trees. Their presence is indicated by the pellets of pink frass lying about, under the infected trees. They may be reared if the infected branch is sawn off, and kept damp. If the infected tree is marked, or known, it may be visited when the imago is due, and large numbers be s. taken at rest upon it

H. hectusfrom Aug., in r. of brake fern; two seasons feeding
 „ lupulinusfrom Aug., in r. of dead nettle, &c.

„ velledafrom Aug., in r. of brake fern

P. staticessorrel, Cardamine impatiens, &c.; mine in the leaves while young

„ geryonsun cistus; mine in the leaves while young

„ globulariæ?

Z. minostrefoil, vetch

„ trifoliifrom July, trefoil, vetch

„ lonicerafrom July, clover, grasses

„ filipendulæfrom July, crowfoot, trefoil, &c.

S. phegeafrom Sept., dandelion, scabious, plantain, &c.

N. cucullatella ...sloe, apple, hawthorn, &c.

„ confusalisoak

„ strigulaoak

„ albulalis?bramble? ash?

N. senexlichens, in fens and bogs

„ mundanalichens, on or under the top stones of old loose stone walls

S. irrorellaground lichens on the coast, just above the tide. The larvæ will feed equally well on tree lichens if sprinkled with salt water every morning, and the pan in which they may be kept is placed in the sun

C. miniatafrom Aug., lichen on oaks (Lichen caninus); also withered sallow, oak, alder

L. mesomella ...from Aug., lichens; will also eat sallow and heath; has been taken among r. of heath

„ muscerdalichens, on sallow, in fens

„ aureola, e. ...from Sept., lichens, on larch, oak, &c.

„ pygmæola ...lichens, among moss

„ lurideolafrom Aug., lichens; will also eat crab

„ molybdeola ...from July, lichens

„ complanafrom Aug., lichens, on sloe and fir

„ griseolafrom Aug., lichens, on poplar; Lichen caninus the supposed proper food, will also eat withered sallow, &c.

„ quadralichens, on oak, beech, apple &c., mostly old trees [mugwort

E. grammicafescue grass, heath,

„ cribrumfrom Aug., heath, bilberry

D. pulchellaMyosotis arvensis

E. jacobææ .. ragwort, and groundsel

C. herafrom Sept., bugloss, and low plants

„ dominulafrom Aug., Cynoglossum officinale, &c., on hilly places, gravel pits, &c.

E. russulafrom Sept., plantain, Erica cinerea, Hieracium, dandelion &c. Feeds well on lettuce in confinement

C. plantaginis ...from Sept., violets, plantain, &c.

„ caiafrom Sept., nettle, and various other plants. Dark varieties may be s. got by feeding on coltsfoot or lettuce

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- C. villicafrom Sept., chickweed, furze, and other plants. The hairy bombyces prefer feeding in the morning sunshine
- A. fuliginosa, b. from Sept., plantain, dock, grasses, &c.
- L. chrysorrhæa ...from Sept., sloe, hawthorn, &c. "Painfully undesirable to handle"
- " aurifluafrom Sept., sloe, hawthorn, oak, willow, &c.
- " salicisfrom Aug., poplar, willow, oak, &c. Often sun themselves on tree trunks when not feeding
- " disparMyricagale, willow, sloe, hawthorn, and various fruit trees. Formerly found at large; now bred artificially
- " monachaoak, beech, birch, fir, apple, &c.; hides in the crevices of the bark
- O. fascelinafrom September, on hedges, dwarf willows, furze fl., broom, heath, and various trees and plants
- " gonostigma ...from Sept., oak, nut, willow, willow, hawthorn, beech, &c. If fed on willow there is a tendency to become double-brooded. Hibernates in a loose web
- T. cratægihawthorn, sloe, willow, birch, oak. May be found on dense and closely-cropped hawthorn hedges bordering roads
- P. populioak, poplar, lime, ash, hawthorn. In repose it lies closely pressed on a branch or twig
- E. lanestrishawthorn, sloe, &c., in hedges; generally a large number in a web; s. remains in pupa several years
- B. neustriasloe, hawthorn, and fruit trees; generally in a batch in a web
- " rubifrom Sept., bramble, heath, &c.; often found wandering about in the sunshine
- B. roborisfrom Sept., hawthorn, dogwood, bramble, willow, broom, heath, &c.
- " quercus (callunæ) from Sept., bilberry, &c.; dogwood preferred
- " trifoliifrom Sept., trefoil, clover, broom, grass, furze, raspberry, &c.; attached to the coast
- O. potatoriafrom Sept., coarse grasses
- L. quercifolia ...from Sept., bramble, sloe, willow, plum, &c. Rests along a twig or branch, which it greatly resembles
- O. sambucata ...from Sept., ivy, elder, holly, bramble, and other trees and plants
- E. vespertaria ...nut
- " apiciarianut, poplar, willow, willow, alder
- A. prunaria, b.from Oct., broom, sloe, beech, bramble, willow, hawthorn, plum, &c.
- M. margaritata ...from Sept., oak, beech, birch, hornbeam, &c.
- P. syringariafrom Sept., lilac, privet, elder, honeysuckle. May be found at night, hanging from its food
- C. elingariahawthorn, sloe, oak, honeysuckle, &c., also, heath, bilberry, &c.
- H. pennariaoak, hawthorn
- P. pilosariaoak, elm
- N. zonariaAmmophila arundinacea, and other sand-hill plants
- " hispidariaoak
- C. glabrarialichens, on fir
- " lichenariafrom Sept., lichens, on oak, park palings, &c.; rests among the lichens, which it greatly resembles
- B. repandatabramble, sloe, birch, plum, spindle
- " perfumaria ...ivy, lilac, clematis, &c.
- " abietariafrom Sept., larch, spruce, and Scotch fir; has been found on whortleberry; will also eat birch, and oak

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- B. roborariafrom Sept., oak
 G. obscurata.....from Sept., thyme, sun cistus, *Potentilla reptans*, *Poterium sanguisorba*, &c.; hides under r. &c., by day
 D. obfuscatafrom Sept., heath, vetch, &c.
 M. cinerarialichens, on walls
 P. cytisariabroom, and *Genista anglica*, on heaths, forests, and waste places on the coast; may be found at rest, stuck up like twigs on broom plants
 G. papilionaria ..from Oct., nut, birch, beech, &c.
 " *smaragdaria*..... —? on the S. E. coast; covers itself with fragments of leaves, &c.
 I. vernaria.....from Sept., *Clematis vitalba*
 P. baiularia, b. from Aug., oak; covers itself with fragments of leaves, &c., after every moult, until nearly full-fed
 H. thymiaria.....hawthorn, oak
 H. auroraria.....from Aug., plantain
 A. rubricatafrom Aug., —? will eat knotgrass, *Lotus corniculatus*, *Medicago lupulina*, *Thalictrum minus*, and the smaller *trifolium*s
 " *scutulata*from Aug., fl. of *Anthriscus sylvestris*, and dandelion, preferring the withered leaves
 " *contiguaria* ..from Aug., *Empetrum nigrum*; will also eat hawthorn buds, and knotgrass
 " *herbariata*from Oct., dried plants in herbaria, & herbalist's shops, &c. Tansy found to be eaten where it occurred
 " *rusticata*from Aug., hawthorn; will also eat ivy, lilac, and withered bramble. Very local
 " *interjectaria*...from Aug., dandelion, scarlet pimpernel, withered
 " *holosericata* ...from Aug., sun cistus, withered
 A. promutata ...from Aug., *Achillea millefolium*, *Artemisia vulgaris*, *Potentilla reptans*
 " *straminata* ..from July, —? will eat knotgrass
 " *immutata*from Aug., some marsh plant; common in fens; will also eat knotgrass
 " *fumata*from Aug., heath
 " *strigilata*from Aug., *Clematis*, *Stachys*, &c.; on the coast
 " *emutaria*from Aug., *Triticum repens*; in salt marshes on the coast; will also eat *Medicago Lupulina*, mint, *Chenopodium*, *Lotus corniculatus*, knotgrass, &c.
 " *aversata*.....from Sept., primrose, gooseberry, nut, *Geum urbanum*, &c.
 " *inornata*various plants
 T. amatariafrom Oct., dock, knotgrass, and other plants
 H. vauariagooseberry, &c., in gardens
 S. belgiariafrom Aug., heath
 S. plumariaheath
 F. atomaria ...from July, *Centaurea*, trefoils, &c.
 " *pinetaria*bilberry
 S. dealbata ..from Sept., grasses
 A. strigillaria ...from Aug., heath, broom; found at night on heaths, &c.
 " *gilvaria*from Sept., *Achillea millefolium*, &c.
 A. grossulariata...gooseberry, currant, sloe, &c.
 P. hippocastanaria from Sept., heath
 H. rupicaprararia.. oak, hawthorn, sloe
 " *leucopheararia*...oak, maple. Vary very much
 " *progemmaria* oak, birch, hornbeam, nut
 " *defoliaria*oak, nut, sloe, hawthorn, birch, elm, lime, &c.
 A. æsculariaoak, elm, lime, sloe, hawthorn, horse chestnut, apple, privet, &c.
 C. brumataoak, and other trees

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- O. dilutataoak, and other trees
 L. didymataChærophylum tem-
 ulum, cowslip, &c.
 " cæsiata, b. ...from Sept., bilberry,
 whortleberry, heath; prefers the
 fl.
 " ruficinctata ...Saxifraga granulata,
 and S. hypnoides; has been
 also found on fruit trees, pepper-
 mint, and sage
 E. nanatafrom Aug., heath, fl.
 " minutatafrom Aug., heath, fl.,
 scabious; s. a cannibal
 " subciliata, b. maple
 " sobrinatajuniper
 " rectangulata...apple, and crab,
 buds, and fl.
 " debiliatawhortleberry, in
 curled-up leaves
 T. variataScotch fir, larch, &c.
 " firmatalarch, and Scotch fir
 Y. elutata, e.from Oct., nut, sal-
 low, bilberry, alder; hides
 among the seed-down of willow
 M. rubiginata ...alder
 C. quadrifasciaria hawthorn, white
 dead nettle, knapweed, and low
 plants
 P. lapidata—? will eat cle-
 matis
 S. vetulatabuckthorn; between
 the leaves
 " rhamnatabuckthorn, birch;
 between united leaves
 C. immanata ...strawberry, bilberry,
 alder, birch, &c.
 " prunata.....currant, gooseberry,
 sloe, &c.
 " testatabirch, willow, poplar
 " populatabilberry, whortle-
 berry, poplar, willow
 " fulvata...dog rose
 " pyraliataGalium, and haw-
 thorn
 " dotatablack, & red currant
 E. mæniariabroom
 " palumbaria ...Genista, broom,
 heath, clover
 " bipunctaria ...from Oct., trefoil,
 clover, &c.
 E. lineolata, s. ...Galium verum
 C. spartiata, e.broom; feeds soli-
 tarily under the leaves, in which
 it makes holes. Is a cannibal
 in confinement
 T. chærophyllata Anthriscus sylvæ-
 tris, and Bunium flexuosum fl.
 D. siculaoak, birch, lime
 C. spinulahawthorn, sloe,
 mountain ash
 P. Cassineaoak; s. willow, lime,
 elm; grips its food-plant tightly
 " nubeculosa ...birch; is difficult to
 rear in confinement; stale, dryish
 food is stated to afford the best
 chance of success
 C. curtula poplars, willow;
 webbed in the leaves
 P. plumigera, e. maple; will also eat
 sycamore [apple
 D. cæruleocephala hawthorn, sloe,
 C. dilutaoak, birch; between
 leaves
 B. glandifera ...from Sept., lichens,
 on walls. (See last month.)
 Towards the end of this month
 glandifera and perla are full-
 fed, and spin up in a crevice,
 or in the larva cocoon
 " perlafrom Sept., lichens,
 on walls
 L. conigeracouch, and other
 grasses
 " lithargyria ...grasses, chickweed,
 plantain, &c.; may be found
 feeding at night
 " littoralis, b. ...from Aug., Ammo-
 phila arundinacea, on the coast.
 Burrows 6 in. or 7 in. in the sand.
 Will also eat Carex
 " impurafrom Oct., Dactylis
 glomerata; may be found at
 night, feeding on the grass-
 blades
 " phragmitidis from Aug., in the
 young stems of common reed;
 in marshes and fens
 T. elymi, m.Elymus arenarius,
 on the coast; may be shaken
 out of the plant

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- N. fulvaPoa aquatica, and Carex, in the stems; in damp woods and fens
 " neuricacommon reed, in the stems; a small hole is visible in the stem of the plant tenanted by a larva
 " geminipuncta common reed, in the stems. Holes covered with silk from within are visible on stems containing larvæ
 " canneon Typha latifolia
 " lutosafrom Oct., in stems of common reed, below the ground
 G. flavagomarsh, and other thistles, burdock, alder, fox-glove, &c.
 H. nictitansat r. of Tussilago, Cyperaceæ, &c.
 " micaceaat base of leaves of Carex, and inside stems and r. of Equisetum, dock, &c.
 X. lithoxyleaat r. of grass, and other plants
 " polyodonlow plants
 " scolopacinawood rushes, and grasses
 H. popularisat r. of grasses
 L. cespitisgrasses. Hides among the r. by day
 M. abjectaat r. of couch grass; the species generally occurs on the coast, and in confinement the food-plant should be sprinkled with salt water
 " brassicæcabbage, dock, Chenopodium, and chrysanthemum; eats into the heart of cabbages
 A. geminafrom Aug., grasses; hides at r. by day
 " fibrosain fl. stems of yellow flag
 " oculæain stems of Dactylis glomerata, and other grass
 M. literosaslender foxtail grass
 " furunculain stems of Festuca, and slender foxtail grass
 " arcuosaAira cespitosa, at the crown of the root
 C. Haworthii ... Eriophorum vaginatum
 G. trilineagreater plantain, and other plants; hides among the r. by day
 A. valligerafrom Oct., at r. of grasses, mostly on the coast
 " suffusaat r. of grass, lettuce, radish, spinach, &c.
 " saucialow plants
 " ex lamattonis from Sept., at r. of cabbage, turnips, &c.
 " corticea, b. ...from Sept., Chenopodium album, and other plants
 " cinereafrom Sept., at r. of low plants
 " cursoriaEuphorbia esula, sandwort, sea violet, &c.
 " nigricansplantain, clover, &c.
 " aquilinaplantain, chickweed, cabbage, poppy, bedstraw, clover, &c.
 " obeliscaGalium verum, and low plants
 " agathina ... } heath, found at night
 " porphyrea } on heaths, or moors
 " præcoxsea-side sandwort, sea violet, chickweed, and other low plants on the coast; also Salix repens, and other dwarf willows. May be traced, and dug up in the sand, in which it burrows 7 or 8 in.
 " ravidæat roots of thistle, dandelion, &c.
 " Ashworthii ...from Oct., fescue grass, hawkweed, sun cistus, thyme, heath, harebell, &c.
 T. ianthinafrom Aug., broom, chickweed, and other low plants
 " fimbriafrom Oct., birch, oak, sallow, broom, primrose; may be found at night feeding on primrose fl.
 " orbonafrom Aug., broom, and low plants
 " pronubafrom Aug., dock, and other plants
 N. depunctasorrel, and other low plants .

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- N. augurfrom August, low plants, hawthorn, willow, &c.
 " ditrapeziumlow plants &c.]
 " triangulum, b. willow, bramble,
 " rhomboideafrom Sept., chick-weed, when young, afterwards on willow, hawthorn
 " brunneawillow
 " festivafrom Aug., violet, willow, foxglove, &c.
 " confluafrom Aug., Silene acaulis, and many other plants
 " Dahliafrom Sept., low plants; found at night on heaths, &c.
 " subroseaMyrica gale, willow
 " umbrosafrom Sept., dock, and other low plants
 " baialow plants
 " neglectafrom Oct., heath, birch, willow, and low plants; found at night on heaths, &c.
 " xanthographa from Oct., plantain, &c.; hides under stones, &c.
 T. gothica willow, hawthorn, oak, &c., also dock, nettle, laurel, broom, lilac, &c.
 " rubricosadock
 " instabilissloe, willow, oak, dock, and other low plants
 " opimawillow, willow, rose
 " populeti poplars, especially Populus nigra; between united leaves [&c.
 " stabilisoak, elm, hawthorn,
 " graciliswillow, willow, low plants
 " miniosaoak, and birch, when young, then hawthorn, and low plants
 " mundaoak, elm, poplar; hides in the bark crevices, and under detached pieces
 " crudaoak, nut, willow; also other caterpillars
 O. suspectabirch, poplar
 " upsilonwillow, poplar; hides under loose bark, or grass at the r.
 " lotawillow, willow; hides in the bark crevices
 O. macilentabeech, birch
 A. rufinaoak
 " pistacinabuttercups, dock, &c. Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation
 " liturameadow sweet, and other low plants; also oak, willow, alder
 " lunosa, b.from Oct., grasses in elevated places; concealed under stones
 C. spadiceasloe, hawthorn, and honeysuckle, when young; later on various low plants
 " erythrocephala low plants
 S. satellitiaoak, &c., between the leaves; also other caterpillars
 D. rubiginosaapple, plum, damson, and other low plants
 H. croceagooak
 X. citrargolime
 " cerago willows, when young; later on low plants. Larvæ feeding on Salix caprea and S. aurita, Mr. Gregson says, almost always produce the typical species; while those which feed upon the catkins and leaves of S. viminalis often produce the lemon-coloured variety and its variations
 " auragobeech; hides in the chinks of the bark
 " gilvagowych elm (seeds)
 " ferrugineawillow, Populus tremula (buds), wych elm (seeds)
 C. xerampelina, b. from Dec., on ash; may be found at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day. Towards the middle or end of the month, having become full-fed, the larva spins under ground a very neat and compact boat-like cocoon, in which it remains some time before changing to a pupa

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- T. subfusa.....poplar, between the leaves
 " retusa, e.sallow, poplar, willow; between the leaves. The skin is very delicate, so that the lines look as if raised; head small, yellowish green, or blackish brown. These characters distinguish it from E. viminalis, which it otherwise resembles
 D. oo.....oak; between united leaves
 C. trapezinaoak, birch, hornbeam, &c.; also other caterpillars
 " pyralinapear, plum, &c.; between united leaves
 " diffinis } elm; between united
 " affinis } leaves
 E. ochroleuca ...Dactylis glomerata
 D. capsophila ...Silene maritima, & S. inflata (seeds)
 P. chihawthorn, willow, hawkweed, dock, Sonchus, lettuce, tea tree, &c.
 D. templiHeracleum sphondylium, inside the stem and root
 E. nigraGalium mollugo, plantain, grass
 " viminalissallow. Occurs with T. retusa, which it resembles, but the head is pale grey, with the lobes outlined in black; the lines more sharply defined, and two pairs of whitish dots on the back of each segment
 " lichenea from Nov., ragwort, and various low plants, on the coast
 V. oleaginasloe, in shady places, and skirts of woods
 M. bimaculosa ...elm
 " oxyacanthæ...hawthorn, sloe
 A. Aprilina oak
 P. empyreafrom Nov., pilewort, &c.
 A. occultaprimrose, plantain, and other low plants
 " nebulosafrom Oct., willow, hawthorn, birch, &c.
 A. tinctafrom Sept., birch, grass, and low plants
 H. proteaoak
 " dentina..... roots of dandelion
 " peregrina..... Chenopodium, and Salsola kali
 C. solidaginis ...bilberry; will also eat hawthorn
 C. vetustapoplar, and various meadow and marsh plants
 " exoleta..... scabious, campion, rest harrow, dock, Eryngium maritimum, turnip, asparagus, &c.
 X. Lambda (Zinckenii) Myrica gale; on moors
 " furciferaalder, birch
 " rhizolitha..... oak
 " petrificata, e. oak. lime, birch
 C. chamomillæ...chamomile, fl., Pyrethrum inodorum, and P. maritimum
 A. myrtilli, s. ...from Oct., heath
 A. luctuosasmall convolvulus; feeds by night, chiefly on the fl.-buds
 P. bracteaEupatorium cannabinum
 " festuæ.....Carex, reeds, and grasses, near the sea
 " iotanettle, dead nettle, honeysuckle, groundsel, &c.; may be easily found at night
 " v-aureumnettle, &c.
 " interrogationis nettle
 A. pyramidea ...oak, elm, birch, willow
 " tragopogonis hawthorn, larkspur, and low plants
 M. maurafrom Sept., dock, chickweed, ivy, &c.
 T. pastinumVicia cracca
 C. nuptaSalix fragilis, and poplar; hides under bark during the day; may be found at night crawling up the tree trunks to feed
 " promissaoak
 " sponsaoak
 E. mi.....Melilotus

LARVÆ]

MAY

- E. glyphicaDutch, or white clover
 R. sericealison — ? Probably various low plants
 H. derivalisfrom Aug., Carex sylvatica, and Luzula pilosa
 A. flexulalichen, in hedges, &c.
 O. dentalisin stems of Echium vulgare, on the coast; the plants look sickly when infested
 P. glaucinalis .. in nest-like formations on the end of birch twigs
 A. cuprealison — ?
 C. angustalis.....moss, on sea shores
 E. flammealis ..heath
 C. lemnalisaquatic, in a case filled with air, feeding beneath the fronds of duckweed; if bred must be kept in water
 H. nymphaelis ..aquatic, in a flat case, under the leaves of yellow water-lily, and Potamogeton pectinatus
 " stagnalisaquatic, on Potamogeton
 B. flavalis?Galium verum?
 " verticalisnettle, between the leaves
 " terrealisfrom July, golden rod, fl., &c.
 E. crocealisInula dysenterica, between the leaves
 M. unionalis? .. privet? successive broods
 S. lutealiscoltsfoot, &c.
 " olivalis ground ivy, and other low plants, in a web under the leaves
 " prunalissloe, and low plants
 S. ambigualis ...moss
 " cembræthe mosses Hypnum elegans, and Jungermannia dilatata
 " muranathe mosses Grimmea pulvinata, Dryum capillare, &c.
 C. verellus?moss on trees, &c.
 " falsellusthe moss growing on walls and rocks, Grimmea pulvinata, &c.
 " myellus?moss, on stones
 C. inquinatellus moss (Barbula muralis on the Continent)
 " chrysonuchellus? Festuca ovina
 " hortuellus.....moss
 " paludellus ...Typha latifolia
 C. cicatricellus ..bullrush
 " phragmitellus from Oct., reed
 S. forficellus.....Poa aquatica
 " gigantellus ...common reed
 A. lotellain the stem and r. of Festuca ovina, and Aira canescens, in a silken tube
 I. carnella.....Lotus corniculatus, fl.
 H. binævella, e. in heads of this/les
 E. pinguisunder bark of ash
 " cinerosella? . Artemisia campestris, and A. vulgaris?
 P. betulella birch
 " dilutellathyme
 " subornatella...thyme (Zeller). Globularia vulgaris (Herr Mann); between the leaves
 " obductella ...in spun-up leaves of Origanum vulgare, Mentha arvensis, Melissa acinos
 " roborellaoak
 R. consociella ...oak
 " advenellahawthorn
 " marmoreaon stunted sloe bushes
 " suavellasloe
 " tumidella oak
 G. cerellawax in beehives
 O. ahenellaunder the radical leaves of Helianthemum vulgare
 M. alveariella .. from Oct., wax in beehives
 H. quercanaoak
 S. Revayana ...sallow (?)
 T. podana..... rose, fruit trees, oak, &c.
 " piceana.....fir
 " cratægana ...oak (?)
 " xylostæana ...fruit trees, oak, honeysuckle, &c.
 " sorbianabirch, alder, nut, oak
 " rosanaalmost any plant
 " dumetana..... low plants
 " diversanapolyphagous on trees

LARVÆ]

MAY

- T. cinnamomeana beech, larch, &c.
 " heparanahawthorn, &c.
 " ribeana.....hawthorn, and al-
 most any tree
 " corylananut, plane, dogwood,
 &c.
 " unifasciana ...hawthorn, &c.
 " semialbana ...Iris germanica,
 honeysuckle, beech, &c.
 " costana.....figwort, willow
 herbs, and other marsh plants
 " viburnana ...Myrica gale, and
 Vaccinium
 " icteranaknapweed, plantain,
 and almost any low plant
 " viridanaoak, birch, &c.
 " Branderiana...aspens, poplar
 " gnomanapolyphagous on trees
 D. Grotiana ? ...oak ?
 A. Gerningiana sea pink, asphodel,
 &c.
 L. Boscanaelm
 P. permutana ?...Rosa spinosissima
 " maccanaMyrica gale
 " ferruganabirch, oak
 " aspersanaPotentilla, meadow
 sweet
 " Shepherdana hemp agrimony, and
 meadow sweet
 " comariana ...Comarum, Fragaria,
 &c., in boggy heaths and
 fens
 T. caudanawillow, saw, pop-
 lars
 " contaminana sloe, hawthorn, &c.
 D. lorquiniana...Lythrum, in fens,
 &c.
 " Læfflingiana...oak
 " Holmiana ...hawthorn, rose, &c.;
 folded leaves
 " Bergmanniana rose; folded leaves
 Foscaleana ...maple, lime
 P. Lecheanasallow, willow, elm,
 honeysuckle, oak, &c.
 D. Hartmanniana willow, &c.
 " semifasciana willows
 P. picana, e.birch, saw shoots
 " sororculana ...birch
 " capreanasallow
 " prunianasloe
 P. ochroleucana rose
 " cynosbana ...sloe, rose, hawthorn,
 and fruit trees
 " gentianana ...from Nov., in teasel
 heads
 " carbonana ...(fuligana) Stachys
 A. salicanasallow, willow, pop-
 lar; in folded leaves
 S. laricianalarch
 " ocellanaalder
 " acerianapoplar; in the young
 shoots and bark
 " dealbanapoplar, saw
 " neglectana ...bark of willow, and
 poplar
 " simplanaaspens
 " incarnatana, e. Rosa spinosissima,
 on the coast
 " suffusana, e. hawthorn
 " rosæcolana, e. rose
 " roboranarose
 P. tripunctana ...sloe, &c.
 A. Udmanniana bramble
 S. achatanahawthorn
 S. latifasciana ... under moss, on
 trees
 " littoranasea pink
 " lacunanavarious low plants
 " urticanavarious low plants
 M. Schulziana ? Pinus sylvestris
 " Ratzeburgiana spruce fir, terminal
 shoots, and needles
 E. arbutanaArctostaphylos uva-
 ursi
 E. quadrana ? ...Scabiosa arvensis
 C. cinctana ?.....Anthyllis vulneraria
 " politanapolyphagous
 S. subjectana ...various plants
 " virgaureana...various plants
 " Wahlbomiana polyphagous, like
 all the genus
 " abrasana ? ...Achillea millefolium,
 &c.
 S. ictericanaalmost any low plant
 B. uliginosana ...Lythrum salicaria
 P. inornatana?
 " lætanaaspens
 G. minutana.....black poplar
 " trimaculana...elm
 " nævanain holly shoots

LARVÆ]

MAY

G. geminana ...in shoots of Vaccinium
 H. crucianain willow and willow shoots
 B. angustiorana yew
 P. corticanahawthorn
 " profundana ...oak
 " ophthalmicana white poplar
 " sordidanaalder
 E. bimaculana ...alder, birch
 " cirsianafrom Sept., in thistle and knapweed stems, in woods
 " Pfulgianafrom Sept., in thistle and knapweed stems, in open places; the piece of stem containing the larvæ may be cut off above and below the entrance-hole, and kept in damp sand
 " turbidanaroots of butter-burr?
 " fœnianafrom Oct., in r. of Artemisia
 " signatanaCerasus padus
 " grandævana (?) in r. of Petasites, & Tussilago
 " populana ...sallows
 O. ulmiana?bilberry
 S. spiniana? ...hawthorn, sloe
 C. Hercyniana...spruce fir
 " ustomaculana Vaccinium
 P. mercuriana ...Dryas octopetala
 R. BuolianaScotch fir
 " pinicolana ...in shoots of Scotch fir
 " sylvestrana .. in shoots of Scotch fir
 S. regianaunder sycamore bark
 D. politanar. of Achillea millefolium
 " alpinana (?) ...tansy r. (?)
 " Petiverana ...r. of Achillea millefolium
 " acuminatana ox eye
 " simpliciana ...Artemisia
 " consortana ...shoots of chrysanthemum
 C. hypericana ...tops of hypericum
 " maritimana ...Artemisia maritima
 S. vibranaCarduus acanthoides, and C. crispus
 E. dubitanaHieracium, fl., and other Compositæ

E. ambiguana ...in fl.-buds of vine?
 " angustana ...heath
 " vectisanaPlantago maritima
 X. hamanahas been bred from Ononis repens
 A. zephyrana ...in stems and r. of Eryngium maritimum
 C. Francillonana from Oct., in stems of wild carrot
 T. pubicornella? near Grassington, Yorks
 " pseudo-bombycella from October, lichen, on oak, beech, &c.; in a long slender case

THE PSYCHÆ.—If a sharp lookout is kept in likely localities, the case-bearing larvæ of some of the genus Psyche may be found, though the perfect insect is rarely met with. Mr. R. MITFORD, of Hampstead, who has added much to our knowledge of the English members of this unsatisfactory group, writes to me of them as follows:—They have had here few friends, and in our List we have one or two which do not agree with Bruand's description of the insects. With the exception of a few of the species, it is utterly impossible to give the food-plant, as many of them are not found until they are crawling up tree-trunks, &c., to spin up, and others which may be found feeding on leaf or lichen on one tree or plant, will readily accommodate themselves to anything else that falls in their way; yet I have found that nearly all the species I find at Hampstead prefer the buckthorn bushes, particularly when in blossom, to anything else, whether for leaf, blossom, or lichen, I know not, but they will eat all the three. I have found all these insects the easiest things to rear in existence.

P. villosella (nigricans) e. grasses, heath, furze, &c.; New Forest, &c. Probably 2 years feeding up. This, and other low-plant feeding case-bearers, may be obtained by sweeping, or beating

LARVÆ]

MAY

- P. opacella, e. ...grass, heath, furze, &c. ; has been found on fallen firs ; New Forest, Witherslack, Rannoch. Probably 2 years feeding up
 " calvella (fusca) from Aug., on bramble ; 2 years feeding up
 " salicolella ?
 " betulinella (anicanella) buckthorn
 " pullella grass, on heaths
 " intermediella ? Black Park, Virginia Water, &c.
 " roboricolella on trunks, and stones, and short grass, among Scotch fir
 " crassiolella ?
 " reticella ?
 P. Verhuellevella seed-fronds of Asplenium ruta-muraria and harts-tongue
 D. marginepunctella in a case, on trees, &c.
 X. melanella lichens, in a case, on trees, and palings
 P. Birdella probably among hay grass
 S. choragella ...in fungi
 " emortuella ...in fungi, on horn-beam
 " arcuatellain fungi
 " granellaamong grain
 " cloacellain rotten wood
 " arcellain rotten wood
 T. fulvimitrella in fungi, and rotten birch stumps
 " albipunctella rotten sticks
 " caprimulgella in rotten wood
 " pelliella ...in carpets, cloth, feathers, &c.
 " pallescetella in rabbit, hare, and cat skins
 " ganomella ...from Oct., in birds' nests
 " biseliellafrom Oct., in bird skins, hair seating, &c. ; all the year round
 " nigripunctella in a case, on old fences
 " semifulvella ...from Nov., in birds' nests, feeding on wool
 T. perorchraceella ants' nests
 L. quadripunctella in shoots of roses
 " praelatellafrom Sept., in a flat case, on underside of wild strawberry
 " rubiellain shoots of raspberry
 I. canariellaRosa spinosissima
 M. fastuosella ...nut
 N. Schiffermillerella ? marsh mallow
 " minimella ...ox eye, fl.
 Y. plumbella ...spindle
 " padellahawthorn, apple, &c.
 " cognatella ...apple and spindle
 " evonymella ...Prunus padus
 P. Curtisellain shoots and young stems of ash
 E. Messingiella Cardamine amara
 P. xylostellaturnip, &c.
 " porrectella ...Barbara vulgaris, Hesperis matronalis
 H. sequellasycamore
 " vittellaelm, beech, &c.
 " radiatellaoak
 " cstellataoak
 Y. asperellaapple
 H. scabrella ...apple, hawthorn
 " nemorella ...honeysuckle
 " harpellahoneysuckle
 P. quercellaoak, and between leaves of willow
 E. Allisella .. Artemisia vulgaris, terminal shoots
 D. costosellafurze, Genista anglica, and broom, fl.
 " paliorellain leaves of Centaurea scabiosa
 " assimilella ...broom
 " manatellacarline thistle
 " atomellaGenista anglica, G. tinctoria, broom
 " arenellaAnthriscus, thistles, and knapweed
 " propinquella thistle
 " Alstræmeriella hemlock
 " hypericella ...hypericum
 " carduellathistle
 " ocellellasallow
 " rotundella .. wild carrot

LARVÆ]

MAY

- D. cnicellain *Eryngium maritimum*, and *E. campestre*, on the Continent
 " Douglasella ...wild carrot
 " Weirella*Anthriscus*
 " chærophyllivorella, e. *Chærophylum*
 G. rufescentella in grasses
 " populellasallow shoots
 " nigra.....on *Populus nigra*, and *P. tremula*
 " lentiginosella *Genista*
 " mulinellafurze and broom, fl.
 " sororculella ...dwarf willow
 " peliella*Rumex acetosella*, in leaves near the stem
 " viscariella ...*Lychnis* shoots
 " affinellaunder moss, on old walls
 " basaltinella? moss?
 " vulgellahawthorn; between united leaves
 " fugitivella.....nut, elm, maple
 " muscosella ...on poplars, and willows
 " fraternella ...in seeds, and shoots of *Stellaria uliginosa*
 " leucomelanella *Silene maritima*, shoots
 " maculiferella *Cerastium semidecandrum*
 " vicinella*Silene maritima*
 " marmorella ...chickweed, on sand hills
 " instabilella ...*Plantago maritima*
 " ocellatella ...*Beta maritima*, fl.
 " atriplicella ...*Atriplex*, and *Chenopodium*
 " sequacella ...in shoots of sun cistus
 " leucateellahawthorn, apple, mountain ash
 " nanella.....pear, fl.
 " Mouffetellain shoots of honeysuckle
 " dodecellain shoots of fir
 " ligulellaon *Lotus corniculatus*
 " tænirolella.....*Lotus corniculatus*, and other *Leguminosæ*, between united leaves
 G. coronillella ...*Coronilla varia*; between united leaves
 " atrellain *Hypericum* stems
 " confinison moss, on old walls
 " gemmella.....lichens, on oak
 " pictella.....chickweed, on sand hills
 " sangiellain *Lotus corniculatus*
 " pinguinella ...in leaves of poplar; pupates under the bark
 P. neuropterella from Oct., in heads of *Cirsium acaule*
 A. spartiellafurze
 " genistella*Genista tinctoria*, and broom
 M. marginella ...juniper
 " juniperella ...juniper
 A. palpellalichens, and rotten wood
 N. verbascella ...nr. Norwich, among *Verbascum pulverulentum*
 S. humerella.....*Artemisia campestre*; between united leaves
 P. bicostellafrom Nov., *Erica cinerea*
 H. Christiennella *Polygala*
 D. sulphurella ...in rotten wood
 " olivella?.....decayed wood
 C. augustella? bark of trees
 " tinctella?decayed wood
 C. fusco-aurella in dead sticks
 B. senescentella thyme
 " cicadella, e....among r. of *Scleranthus perennis*, and *S. annuus*
 " chenopodiella *Chenopodium*, and *Atriplex*
 G. thrasionella? in stems of rush?
 " equitellain shoots of *Sedum acre*
 " schœnicolella in seed-heads of *Schoenus nigricans*
 A. ephippella ...wild cherry, in the shoots
 " nitidellain hawthorn shoots
 " spiniellain mountain ash
 " albiatriella ...sloe, in the shoots
 " semifuscella, birch, mountain ash, sloe shoots

LARVÆ]

MAY

- A. mendicella ...sloe shoots
 " retinellabirch
 " dilectellajuniper shoots
 " andereggiella wild apple
 " curvellaapple shoots
 " sorbiellamountain ash shoots
 " pygmælla.....in willow catkins,
 and shoots
 Z. saxifragæ, e. Saxifraga azoides, &c.
 G. elongellain rolled alder, and
 birch leaves
 " ononiellarest harrow & clover
 G. atriplicivorella from Sept., in
 Atriplex
 C. alcyonipennella Centaurea, bur-
 dock, and thistles
 " Wockeella ...Stachys betonica
 " ochreellasun cistus
 " salicornella ...from Oct., Sali-
 cornia, in the stems
 " vibicellaGenista tinctoria
 " conspicuella... Centaurea nigra, &c.
 " pyrrhulipennella heath
 " anatipennella sloe
 " palliatella... oak, willow, &c.
 " ibipennella ...birch
 " currucipennella oak, willow
 " discordella ...Lotus corniculatus
 " saturatella ...from Sept., broom
 " onosmella ...Echium vulgare
 " troglodytella Inula dysenterica,
 Eupatorium cannabinum
 " lineolellaBallota nigra
 " murinipennella rushes
 " cæspititiella...from Sept., rushes;
 seeds
 " salinellafrom Oct., Atriplex
 portulacoides
 " hemerobiella plum, pear, cherry;
 in a case on the leaves
 " juncicolella ...from Oct., heath
 " laricellafrom Sept., larch
 " albitarsella ...from Nov., Ori-
 ganum, and Glechoma
 " nigricella.....hawthorn, sloe, apple
 " fuscocuprella from Sept., elm,
 alder, birch
 " gryphipennella from Sept., rose
 " viminete.la ...from Sept., willow,
 and osier
 C. olivaceella ...Stellaria holostea,
 Cerastium vulgatum, and C.
 arvense
 " solitariella ...from Oct., Stellaria
 holostea
 " artemisicolella from Aug., fl. of
 Artemisia vulgaris, and A.
 campestris
 " graminicolella? Lychnis flos cuculi?
 " lutipennella...oak, birch
 " badiipennella elm, ash
 " limosipennella elm
 " chalcogrammella Cerastium
 arvense
 " bicolorella?...alder
 B. præangustella poplar, willow; be-
 tween united leaves
 O. v-flavella.....in fungi, and wine
 corks
 C. Illigerella ...Ægopodium poda-
 graria, in crumpled leaves
 L. paludicolella Epilobium hirsutum
 " lacteellaEpilobium hirsutum
 " conturbatella Epilobium angusti-
 folium, among terminal leaves
 " Raschkiella ...Epilobium angusti-
 folium
 " ochraceella ...Epilobium hirsutum,
 in stem and r.
 " phragmitella Typha latifolia, heads
 " rhamnella ...buckthorn
 C. Schrankella...in Epilobium alsini-
 folium
 E. Gleichenella in Luzula, and Carex
 " magnificella ...Luzula pilosa
 " albifrontella...in many grasses
 " atricomella ...in stems of Dactylis
 glomerata
 " laticomella ...in stems of Dactylis
 glomerata
 " cinereopunctella from Sept., in
 Carex glauca
 " trapeziella ...from Oct., in Luzula
 pilosa; examine the under-side
 of the leaves
 " perplexella ...in Aira cæspitosa
 " teniatella ...from Sept., in Brachy-
 podium sylvaticum
 " megerlella ...from Sept., in Brachy-
 podium, Bromus, Aira, &c.

LARVÆ]

MAY

- E. adscitallain *Sesleria cærulea*,
and *Aira cæspitosa*
" *rhyncosporella* in *Eriphorum*, and
Carex
" *eleochariella*...in *Eriphorum*, and
Carex
" *biatomella* ...in *Carex glauca*
" *triatomella* ...in a fine grass
" *pollinariella*...*Brachypodium syl-*
vaticum
" *cygniennella* *Dactylis glomerata*,
and other grasses
T. *dodonacella* from Oct., in oak
L. *quinqueguttella* in dwarf willows
" *vacciniella* ...in whortleberry
L. *Clerckella* ...in sloe, apple,
cherry, hawthorn, &c.
C. *spartifoliella* under bark of broom
" *Waillesella* ...in *Genista tinctoria*
O. *auritella*in fl. stalks of *Caltha*
palustris
B. *aurimaculella* on *Chrysanthemum*,
and ox eye
" *maritimella* ...*Tripolium vulgare*
" *crisatella*on yarrow
" *artemisiella* ...*Artemisia campestris*,
and yarrow
T. *immundella*...under bark of broom
- A. *Bennetii**Statice limonium*
P. *Bertrami**Achillea millefolium*,
and A. *ptarmica*
" *ochrodactylus* yarrow shoots
" *isodactylus* ...in shoots and stems
of *Senecio aquaticus*, &c.
" *Zetterstedtii?* in stems of *Senecio*
sylvaticus
" *parvidactylus* thyme, and *Hiera-*
cium pilosella
" *phæodactylus* rest harrow
" *serotinus**Galium mollugo*
" *plagiodyctylus* *Scabiosa*, and *Ve-*
ronica chamædrys
" *lithodactylus* *Inula dysenterica*, &
I. *conyza*
" *tephradactylus* from Sept., golden
rod ; in shady places
" *galactodactylus* burdock
" *spilodactylus* *Marrubium vulgare*
" *tetradactylus* thyme
" *pentadactylus* *convolvulus*, &c.
" *dichrodactylus* tansy
" *Lienigianus*, e. *Artemisia vulgaris*
" *brachydactylus* *Lactuca muralis*, &c.
" *baliodactylus* *Origanum vulgare*
" *aridus*on the Continent on
fl. buds of *Coris monspeliensis*

PUPÆ]

Although the practice of searching for pupæ has never been recommended during the summer months, the number of kinds, as proved by the subjoined list, shows that it should not be omitted from our programme, at least when we are in quest of any particular species, or when circumstances prevent our following out any other plan of operations.

- M. *Athalia*, e. ...suspended, among
plantain, &c.
S. *Megera*, b. ...on grass stems, &c.
L. *Alexis*, b. ...under stones, &c.
" *Adonis*, m. ...sub. at, or among
Hippocrepis comosa
S. *populi*sub., at r. of poplar,
willow, &c.
" *tiliæ*sub., at elm, lime,
beech
C. *porcellus*sub., near *Galium*
" *elpenor*.....sub., near willow
herb, &c.
- S. *myopæformis* in wood of branches
and trunks of apple, and pear
trees
" *culiciformis* ...in stumps of felled
birch
" *formicæformis* in withy stumps.
Pupæ of clear-wings are best
sawn out of the wood
" *cynipiformis* in oak stumps
" *musca-formis* in the heart of
withered plants of sea pink
" *tipuliformis* ...in wood of currant
bushes

PUPÆ]

MAY

- S. sphegiformis in r., branch, or twig of alder
 „ asiliformis ...in r. or stem of ash, or poplar
 „ bembeciformis in stem, or branch of poplar, osier, or willow
 „ apiformis, b. in r., or base of trunk of poplar
 M. arundinis .. inside reed stem, which the pupa can traverse, by means of its hooks
 C. ligniperda ...at various trees, spun up, under bark; s. sub.
 H. lupulinus.....at r. of dead nettles, &c.; in a long cocoon, like a gallery, which it can traverse, by means of its hooks
 „ velleda.....at r. of brake fern; spun up amongst loose soil
 L. asellusspun up, on a leaf
 N. cucullatella...on twigs, and bark of hawthorn, and sloe
 „ confusalison bark of oak
 S. irrorellain a slight web, under stones, oyster, cockle, mussel shells, &c., on the coast, just above the tide-mark
 L. aureolaunder moss, on lichen-covered larch, oak, &c.
 „ deplanaon lichen-covered yew, spruce fir, oak, beech
 „ lurideolaon lichen-covered trees, and old walls
 C. plantaginis ...spun up, between leaves of violets, plantain, &c.
 „ villicaspun up, about low plants
 A. fuliginosa ...in a boat-shaped cocoon, on food-plant
 „ lubricipeda ...spun up, on trees, palings, &c.
 „ menthrasti ...spun up, on trees, palings, &c.
 „ urticæunder moss, on trees
 L. salicis between leaves of willow, poplar, &c.; under bark and copings, and on palings, &c.
 B. rubiin a long, loose cocoon, among food-plant
 A. prunariaamidst folded leaves
 E. fasciariaat base of Scotch firs; rarely within 2 feet of the tree, at 1½ to 2 inches deep
 E. dolobraria ...under moss, on oak, &c.
 N. zonariato March, sub., on sand-hills
 B. repandata ... } e. spun up, in
 „ rhomboidaria } loose cocoon
 „ abietaria, e. in cocoon, about larch
 „ roborariaat oak, in slight cocoon; s. sub.
 „ consortaria ...under moss, on oak
 I. lactearia.....spun up, among leaves of oak, or birch
 P. baiularia spun up, in a loose net-work, on underside of oak twigs
 H. thymiaria ...in loose cocoon, amongst leaves
 E. poratafastened to leaf of oak
 E. heparataat alder; on the surface
 A. bisetata in slight cocoon, at base of leaves of dandelion
 „ trigeminata ...in loose cocoon
 „ promutata ...
 „ fumata
 „ aversata
 C. exanthemaria spun up, under leaves of willow, and alder
 S. belgiariaamong heath, in a slight cocoon, on the ground
 S. dealbatain shuttle-shaped cocoon, on grass stem
 A. ononariaamong, or near rest harrow, on the surface
 A. strigillaria, e. in a web among heath, or broom
 L. cæsiata, e. ...in a slight web, among leaves of bilberry, whortleberry, or heath; on mountainous heaths
 „ olivataamong Galium mollugo, in a slight cocoon, on the surface of the soil, under a leaf, or stem
 E. unifasciata ...from May, among, or near Odontites rubra; s. remains several years in pupa

PUPÆ

MAY

- E. isogrammata.....about Clematis vitalba
 " nanataabout heath
 " minutataabout heath
 " rectangulata...on apple, and crab; under moss, and loose bark
 M. ocellatain cocoon, amongst Galium; near the ground
 M. galiata.....sub., near Galium
 A. sinuata.....on the ground, in earthen cocoon, among Galium
 C. picatafrom Sept., in a slight cocoon, on the surface, among, or near chickweed
 " sagittataspun up, about Thalictrum, or on the ground near; in fens
 " russataspun up, on leaf of strawberry, birch, hawthorn, willow, &c.
 " populataspun up, about bilberry, &c.
 " fulvataabout dog rose
 E. palumbaria ...in compact cocoon, among broom, &c.
 P. falcatabirch, &c.; between united leaves
 " hamula.....oak, birch; between united leaves
 " unguicula.....among beech leaves, in a slight web, or on the ground
 D. furcata.....spun up, on trunk of willow, or willow
 " vinulaspun up, on trunk of willows, poplars, or willow
 S. fagispun up, at beech, oak, birch, elm; among leaves, or at r.
 P. bucephala .. sub., at various trees
 C. reclusa.....spun up, among dead leaves of willows, poplars, willows
 P. palpina at willows, and poplars, on edges of streams, in cocoon on the ground, or under sods
 N. cameolina.....at various trees, in a slight cocoon
 " cucullinaat maple, and sycamore, under moss, &c.
 N. dictæain large cocoon, at poplars, willows, and willows, under a leaf, or sod
 " dictæoides ...in a slight cocoon, at birch, under a leaf, &c.
 " dromedarius in a slight cocoon, at birch, alder, nut, under a leaf, &c.
 " ziczacat poplars, willow, willows, in a slight cocoon
 " Dodonea.....sub., at oak, or birch
 T. batis.....near bramble, and wild raspberry,
 C. duplarisbetween united birch leaves
 " fluctuosaamong birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
 A. tridens.....spun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations in the bark of birch, poplar, alder, willow
 " aceris spun up, among fallen leaves, and under loose bark of sycamore, horse-chestnut, maple, birch, and s. oak
 " strigosaamongst dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " ligustri.....spun up, under moss, stones, &c., near ash, and privet; also sub.
 " rumicis.....spun up, in crevices of trees, palings, walls, &c.
 L. lithargyria ...sub., about grass
 " littoralisbelow the surface, on sand-hills, about marum grass; on the coast
 A. putrissub., at elm
 X. rureaunder moss, on stumps, &c.
 " hepaticaunder moss, and stumps
 D. pinastriin a cocoon, on the ground, among dock, sorrel, &c.

PUPÆ]

MAY

- P. leucophaea* ...amongst moss
A. unanimitis ...under bark of willows, in damp places, and among decayed willow wood
C. Morpheus ...spun up, in a leaf, or an earthen cocoon, attached to food-plant
R. tenebrosa, b. among violets, and other low plants; a little beneath the surface
A. segetum, s. ...sub., among Cruciferae, grass, &c.
T. ianthina } sub., at various
 fimbria } low plants
 orbona }
N. augur } sub., near rose,
 baia } bramble, &c.
 festivasub.
 confluaamong low plants;
 on, or near the surface
 umbrosaunder moss, &c.
A. nebulosasub., near low plants
H. marginata ...sub., near *Ononis procurrens*
H. dipsaceaamong melilot, and probably *Silene* otites, and *Linaria*
A. myrtillispun up, in heath
E. venustula.....at r. of *Tormentilla reptans*, and grass
A. urticaespun up, among nettle leaves
 " *triphasia*spun up, among nettle leaves, hop, &c.
P. chrysitisamong the leaves of burdock, thistle, nettle, dead nettle, &c.
M. typica, e. ...spun up, on walls, palings, &c.
P. ænea among *Polygala vulgaris*
H. tarsipennalis at willow, or wild raspberry (?); spins down a leaf
A. flexula, e. ...in a spun leaf
E. sambucalis ...spun up, in crevices, in palings, walls, &c., near elder
P. margaritalis...among wild mustard
G. canella..... among *Salsola kali*
P. trigonodactylus on coltsfoot
 " *osteodactylus* on golden rod

IMAGOS]

The rapidly lengthening lists, which each month now discloses, plainly enough indicate the increasing number of possible captures open to the collector. A great number of species will require the stimulant of the beating stick before they will discover themselves. A rarity sometimes

"Then breaks from out the bush with hurried wing,"

and the collector has himself to thank if he misses it. A mallet, which is used on the Continent, has been recommended for jarring moths off trees with slender trunks, and the lower branches of other trees. The yew is a good tree for harbouring moths, and may be sometimes pelted with stones, &c., with advantage. The plant or tree which the larva feeds upon is often chosen by the imago for its place of concealment, and may be said to constitute the next natural attraction to flowers,—

"The murmurous haunt of flies on summer eves,"

which are visited by many moths and butterflies, both during sunshine and at night. A mass of flowers, in the sunshine,

"With butterflies for crowns,"

forms, indeed, a beautiful object, besides giving the collector a chance of a good "haul."

IMAGOS]

MAY

Many small moths (says Mr. C. G. BARRETT) may be blown (by the mouth) into the net. If a steady wind is blowing this mode of capture is often very productive; if it is stormy or gusty, hardly a specimen can be obtained. Many species which cannot be seen may be thus captured, especially from trunks of trees which they so much resemble in colour as to be undistinguishable. This practice of blowing, however, tries the "wind," and only the strong can keep up the exercise.

Some of the species which rest on tree trunks, and which may be found this month, require to be carefully sought for. Some notes on this subject will be found under the February Imagos. The northern and eastern side of tree trunks, in larch and beech woods, in most elevated districts, yield *T. crepuscularia*, and sometimes *T. consonaria*, *T. biundularia*, and *H. abruptaria*. *T. consonaria* when disturbed generally dives down into the grass, from whence it sometimes requires care to extricate it without damage.

The reader may be reminded that most of the *Pyrales* require to be beaten out of the thick undergrowth in which they hide; and that *Tortrices* generally fly most at about a couple of hours before dusk, while many also fly in the early sunshine.

Now that the *Noctuæ* are beginning to appear in some plenty, the reader should not forget the desirability of resorting to "sugaring," which, from this family's love of sweets, often proves a means of capturing large numbers. Many of them also show a great liking for light, and this is indicated in the lists where it has been strongly manifested.

- | | |
|---|--|
| P. Machaon.....fens, and marshes | L. alsus, e. ....hills, railway banks, |
| L. sinapis.....woods; does not | coast sand-hills, &c. |
| travel quietly if boxed | " argiolus .....among holly, in |
| P. brassicæ .....gardens, &c. | plantations, woods, and gardens, |
| " rapæ..... gardens, &c. | and at fl. |
| " napi.....gardens, &c. | N. Lucina, e. ....woods, and banks |
| " Daplidice... has been taken in | near, where primrose abounds |
| lucerne fields | S. alveolus .....woods, and fields |
| A. cardamines ...fields, &c. | T. tages .....heaths, commons, |
| A. Euphrosyne woods, &c. | hills, &c. |
| M. Artemis .....wet meadows; rests | H. sylvanus .....hills, and woods |
| among the herbage in dull | S. ocellatus } rest on trees, |
| weather | " populi } palings, &c.; |
| " Cinxia .....on the coast | " tilix } come to l. |
| S. Aegeria.....woods, and lanes | D. lineata.....at fl. |
| " Megæra .....lanes, banks, walls | C. porcellus, e. may be found on |
| C. Pamphilus ...fields, &c. | patches of <i>Galium verum</i> , or on |
| T. rubi .. .....near woods | the ground near; hovers over fl. |
| P. Phlæas .....fields, and lanes, | at early dusk, and comes to |
| coast sand-hills, &c. | sugar |
| L. agestis .....hilly fields | M. stellatarum...flies by day, and in |
| " Alexis, e. ....fields, and hills; rests | the evening; hovers over fl.; |
| on grass, &c., at night | often found flying over old walls |
| " Adonis.....chalk downs, and | where <i>Galium</i> grows, and on |
| limestone hills | coast sand-hills |

IMAGOS]

MAY

- M. fuciformis ...flies in the sunshine, and hovers over fl., generally from 9 till 11 a.m., and 3 to 4 p.m.
- " bombylifomis flies in the sunshine and hovers over fl., seldom after 1 or 2 p.m.; may be found at rest on the ground in dull weather
- S. myopæformis on apple, and pear trees, particularly if old, and unhealthy, and bushes, &c., near
- " culiciformis, e. on birch
- " cynipiformis, e. on oaks; s. in coppices
- " sphegiformis on low plants near alder, and hovers over fl.; also flies in the evening
- " apiformis, e. on poplars; s. mistaken for a hornet
- H. lupulinus, e. flies just before dusk
- P. geryonon grassy hill-sides; flies in the sunshine
- N. confusalis, e. at rest, on trees, &c.
- L. aureolarests on larch trunks, high up, and may be beaten from trees
- " rubricollis ...flies in the sunshine, over the tops of larch, &c.
- D. pulchellahas been taken in fields, flying by day
- C. plantaginis, e. hills, and the ridings of hilly woods; flies by day
- A. fuliginosa.....
- " mendica
- " lubricepeda ...gardens, &c.
- " menthrasti ...gardens, &c.
- O. pudibunda ...gardens, &c.; s. found hanging to the undersides of bramble and hop leaves; flies about 11 p.m.
- D. corylibeech woods, &c.
- B. rubiheaths, &c., in bright weather often flies about 3 p.m.; also in the evening
- L. ilicifoliaon moors
- S. carpiniheaths, and open places; flies in the sunshine
- E. advenaria, e. hides in grassy ridings of woods, among bilberry; easily disturbed
- R. crataegata ...beaten from hedges
- V. maculatawoods; flies by day
- E. dolobraria ...woods; beaten from oak
- S. lunariawoods; comes to l.
- " illustrariawoods
- O. bidentatarests on tree trunks
- B. hirtaria, b. ...in the squares of London
- A. betulariaon trees
- H. abruptaria ..on trees, palings, &c., and in gardens; comes to l.
- B. cinctaria
- T. consonaria . at rest, on trees; in beech woods
- " crepuscularia, b. on trees
- " biundularia ...on trees, and palings
- " punctulata ...
- N. viridatamosses and fens; fades soon after appearing
- I. lactearia, e.woods; flies by day; soon fades
- E. poratawoods
- " punctariawoods
- " trilineariabeech woods, flies in the sunshine
- " omicronaria ...woods; beaten from maple
- " orbicularia ...may be beaten from
- " pendularia ...woods, &c. [birch
- H. aurorariain fens, &c.
- A. luteatawoods
- " candidatawoods
- " Blomeraria ...on wooded hillsides, near wyth elms, at rest on larch, and other trees
- A. ornataon grassy hills, &c.
- " remutata, e.woods
- C. pusariawoods
- " rotundaria ...
- " exanthemaria woods
- C. temeratawoods, &c., in the neighbourhood of wild cherry, and buckthorn
- " taminata ... woods
- M. notatawoods; on birch trunks
- " lituratain larch woods
- S. clathratain, and near saint-foin fields

IMAGOS]

MAY

- P. petrarum*
N. pulveraria
S. belgiana, e. heaths
F. carbonaria
 atomaria fields, woods, fens,
 heaths
 pinaria flies in the sunshine,
 round fir trees; flies high after
 the first week
M. euphorbia woods
S. sacra flies by day; has
 been taken at fl., at sugar, and
 at l.
L. purpuraria ... in the north; flies by
 day, on dry hills
A. ononaria, e. among, or near rest
 harrow
A. citraria, m. among wild carrot,
 chiefly on the coast
L. adustata ... among spindle
L. marginata ... woods
P. hippocastanaria flies after dusk,
 among heather
L. pectinaria ... in hedges; comes
 to sugar
E. albulata among yellow rattle
 blandiata
E. venosata among *Silene*, and
 Lychnis, and on palings near
 consignata ... in apple orchards,
 rests on the trunks, just below
 the first branches
 linariata among toadflax
 pulchellata ... among foxglove
 centaureata ... on palings, &c., and
 among ragwort, &c.
 plumbeolata, e.
 pygmaea ... flies in the sunshine,
 among long grass, and settles on
 low fl.
 helveticata ...
 satyrata
 castigata on palings, &c.
 lariciata ... among larch
 virgaureata ... among golden rod
 albipunctata has occurred as early
 as Jan. and Feb.
 pumilata among spruce
 irriguata rests on birch, oak,
 &c.; may also be beaten
- E. pimpinellata*
 fraxinata, e. s. as early as Jan.
 indigata on fir trunks
 nanata on heaths
 vulgata
 assimilata ...
 dudoneata ... flies in the early
 morning sunshine
 exiguata
 pumilata
 coronata on trees, and palings
L. sexalata on tree trunks, in
 hedges, and by beating
 hexapterata ... woods
 viretata on birch, and fir trunks
T. simulata
Y. ruberata
 impuviata ...
M. ocellata
 albicollata ...
M. hastata, e. ... woods; flies in the
 sunshine, generally after 2 p.m.;
 may be beaten from birch, and
 other trees
 procellata ... beaten from clematis
 sociata (subtristata)
 montanata ... woods
 fluctuata ... on walls, and palings
 galiata
A. derivata
 berberata
C. propugnata ... woods
 ferrugata ... woods
 unidentaria ...
C. fluviata at light
P. lignata, e. ...
 vitalbata beaten from clematis
S. certata at rest on palings,
 &c.; also at light
C. corylata woods
 russata woods
 suffumata flies at dusk
 silaceata among willow herb
 prunata
E. lineolata rests on coarse
 grasses, on the coast
A. plagiata
C. obliquaria ... among broom; does
 not fly till between 10 and
 11 p.m.

IMAGOS]

MAY

- P. lacertulathe hook-tips may be beaten from their hiding-places, in trees, by a long pole; females may be thus obtained, which are rarely seen
- " sricula, e.
- " falcula.....
- " hamula.....flies in the day time, generally in the morning; may be beaten from oak; comes to l.
- " unguicula.....a day-flyer; may be beaten from beech
- C. spinulaat rest, on palings, &c.
- D. bicuspis ... }
- " furcula, e. } at rest, on willows,
- " bifida, e. } poplars, &c.
- " vinula.....
- P. bucephala ...at rest; comes to l.
- C. curtula.....
- " reclusa.....
- G. crenata.....
- P. palpinaat l.
- N. camelina.....hides on fronds of fern, and in, and on trees; comes to l.
- " dictæaat rest, at base of willows, and large poplars
- " dictæoides ...
- " dromedarius at l.
- " tritophus
- " ziczachides in bark crevices of poplar
- " trepida.....at l., and on oak trunks
- " Chaonia
- " Dodonea
- T. batis.....flies over bramble, at dusk
- C. duplaris
- " fluctuosa ... } do not always travel
- " ocularis ... } quietly when boxed
- A. psiat rest, on tree trunks
- " leporinaon tree trunks, s. high up
- " acerison trunks of sycamores, and palings
- " megacephala on tree trunks, and palings
- " alnithis rare species has been taken at sugar
- F
- A. ligustri.....at rest, on ash trees
- " rumicis.....
- " auricoma
- " myricæ.....in the North
- M. flammea
- X. rurea, e.
- X. conspicillaris, b. rests on trees, especially where the bark has been stripped
- N. saponaria, e.
- P. leucophæa, e.
- M. albicolon, e. on the coast
- " brassicæon walls, palings, &c.
- A. basilinea
- " unanims, e. marshes, and fens
- G. trilinea.....in grassy places
- H. palustris, e. has been taken at l.
- C. cubicularis ...beaten from thatch
- R. tenebrosa, m.
- T. pronuba
- N. c.-nigrum ...
- " rubi
- " gothica..... at fl.
- " rubricosaat fl.
- " opima ... at fl.
- " populetiat fl.
- D. carpophaga...at l.
- " capsophila ...
- " capsicola ...
- " cucubalimay be taken at rest, and hovers over fl.
- E. lucipara
- H. adusta, e. ...
- " dentina.....
- " chenopodii ...at l.
- " suasaat sugared fl., on commons, &c.
- " pisi, e.
- " thalassina, e.
- " genistæ, e. ...
- " rectilinea.....at rest, on stones, &c., on dull days
- C. perspicillaris
- C. verbasci
- " scrophulariæ
- " asteris
- " chamomillæ...s. hides under the top ledge of a paling
- H. marginata, e.

IMAGOS]

MAY

- A. cordigera.....at Rannoch
 " myrtilli.....flies in the sunshine,
 on heaths
 H. arbutifields, &c. ; flies in
 the sunshine
 A. luctuosaflies in the sunshine,
 in clover fields, &c., and hovers
 over fl.
 E. venustula, e.
 C. alchymista ...
 O. lunaris
 E. mi..... } fly in the sunshine,
 " glyphica ... } and hover over fl.
 P. seneca..... }
 M. salicalis.....among long grass, &c.
 H. barbalisbeaten from under-
 growth
 " tarsipennalis, e. woods
 P. punicealis ...flies in the sunshine
 " purpuralis ...flies by day
 " ostrinalis, e. flies in the sunshine
 H. cespitalis.....
 E. cingulalis.....on grassy hill-sides,
 &c.
 " anguinalis ...on grassy hill-sides,
 &c.
 " octomaculalis, e. woods, &c.
 A. nemoralis.....
 P. stratiotalis ...flies at dusk, over
 stagnant pools; comes to light
 B. lupulinalis ...among hop
 " lancealis, e....
 M. unionalis.....successive broods
 S. decrepitalis ...
 S. dubitalis
 C. pratelluss. at sugar
 " chrysonuchellus among dry grass,
 &c., local
 " rorellus.....
 H. nimbella ...among Jasione mon-
 tana, and thistles, and ragwort,
 on the coast
 " senecionis ...
 E. ficella, e.
 P. interpunctella, e.
 N. angustella ...
 O. ahenella
 M. cephalonica, e.
 H. prasinana ...woods
 " clorana.....osier beds
 T. ministrana ...woods
 A. prodromana northern moors
 P. mixtanafrom July, moors
 A. Conwayana...
 P. Lecheana.....woods
 P. praelongana ...
 " marginana .. damp woods, heaths,
 and fens
 S. laricianaamong larch
 " suffusanahedges
 " simplanaamong poplar
 P. tripunctana, e. gardens, and hedges
 S. euphorbiana S. coast
 M. palustrana ...Perthshire, &c.
 R. arcuanaamong young oaks
 E. arbutanaon heaths, in the N.
 E. fraetifasciana on downs
 " quadranaKent, Surrey, &c.
 P. rugosana, e. in hedges, among briony
 C. politanaon heaths
 " musculana ...hedges
 C. favillaceana...in woods, among
 juniper
 C. rusticanamoors, fens, mosses
 B. lanceolana ...among rushes
 P. siculanaWitherslack
 " unguicana ...heaths
 " uncanaheaths, and woods
 " comptana.....chalk downs, &c.
 " subarcuana ...fens
 " myrtillana ...moors, among Vac-
 cinium
 " Lundana ...
 " diminutana, e. among willows
 " Mitterpacheriana among oak
 " upupanaSouthern woods
 G. campoliliana among willow
 " obtusanaLancashire
 P. tetraquetra... woods
 " immundana ...woods
 E. Pfulgiana.....
 " gallicolana ...Darent
 C. strobilana ...woods, among spruce
 " splendidulana on oak trunks
 " argyranon oak trunks
 " nemorivagana moors, and Scotch
 mountains
 " Hercyniana ...among spruce
 " distinctana...Westmoreland, Cum-
 berland, Norfolk

IMAGOS]

MAY

- C. vacciniana ...among bilberry
 R. turionanaamong Scotch fir
 S. perlepidana ...among grass, and
 low bushes
 " internanaamong furze
 " composana ...in clover fields
 " germarana ...woods in the S.
 D. sequanadry fields and rail-
 way banks
 " plumbana
 P. Rheediana ...in hawthorn hedges
 C. albersanawoods
 " ulicetanaamong furze
 " aspidiscana ...knocks about if kept
 long in a box
 X. Fabriciana ...
 L. reliquanawoods
 " servillanawoods in the S.
 E. maculosana ...woods
 " Degreyana ...Norfolk
 " curvistrigana woods in the S.,
 among ragwort
 " vectisana
 " udanamarshes, &c.
 " notulanafens, and marshes
 " ricololanamarshes
 " ciliana
 " pallidanacliffs
 " anthemidana chalk districts
 X. Zoegana
 " hamana
 A. Beaumanniana among rushes, in
 damp places
 " zephyrana ...South coast
 " maritimana, e. on the coast
 C. Francillonana on the coast
 " stramineana...chalky places
 T. hyemanaoak woods
 D. fagellaon trees
 P. villosella (nigricans) e. New Forest
 " opacella, e.New Forest, Wither-
 slack, Rannoch
 " calvella (fusca) e.
 " pullella, e. ...heaths, the larva
 feeding on grass
 S. inconspicua
 S. emortuella ...Cheshire
 " cloacellaWitherslack
 T. imellaLytham
 " rusticellaamong cloth, &c.
 T. monachella ...Cambs
 " ganomella ...hedges
 " bistrigella ...on birch twigs
 " ruricolella ...
 L. luzellaYorks
 I. masculella ...among hawthorn
 " capitella, e.
 M. calthellain fl., of Caltha
 palustris, and buttercup
 " mansuetella, e. Windermere
 " allionella, e. among vaccinium
 " Thunbergella
 " purpurella ...among birch, and
 Scotch fir
 " salopiellaamong birch
 " Sparmannella among birch
 " subpurpurella, e. among oak
 " fastuosella ..among nut
 N. Swammerdammella, e. on trees,
 among heath
 " Schwarziella in hedges, &c.
 " pilellaYorks, Scotland,
 Lake District
 " metaxellaYorks, Scotland
 A. fibulellain veronica fl. These
 "long horns" fly in the sunshine
 " rufimitrella ...in wet meadows,
 and bogs
 " viridella, e.in hedges, and
 among oak
 S. comptellaamong sloe
 " griseocapitella among birch
 " pyrellain hawthorn hedges
 Y. viginipunctella Guildford, Becken-
 ham
 A. decemguttella Darent
 C. pyraustella ...has occurred in
 Sutherlandshire
 P. xylostellaamong Cruciferae
 " porrectella, e. in gardens
 G. velocellaamong sheep's sorrel
 " ericetellamoors, &c.
 " longicornis ...in bare, burnt places
 " diffinellaamong sheep's sorrel
 " desertellaon coast sand-hills
 " acuminatella among thistles
 " mundellasands, on the coast
 " proximella ...among birch, and
 alder, on moors
 " notatellaamong willow

IMAGOS]

MAY

- G. luculellaamong oak
 " scriptellaamong maple
 " æthiopella ...on moss
 " solutellaRannoch, Lizard
 " littorellaBirkenhead, Isle of Wight
 " aleelaWest Wickham
 " triparellaamong oak
 " cerealellaamong grain
 " anthyllidella among Anthyllis, and clover
 " Hermannella in fens, and on the coast
 " næviferella ...
 " pictellacoast sand-hills
 " brizellaabout thrift
 " intaminatella railway banks
 " gracilella, e....
 " umbrosella ..coast sands
 M. fasciellaCambs, Lewes
 " ustulellanear Worcester
 H. Geoffroyella, e.
 D. sulphurella ...
 Cæ. minutellain hay lofts
 " trisignella.....
 " stipellaamong dead fir trees
 " grandella, e....Llangollen, Bewdley Forest [N.
 " subaquilella...Lancashire and the
 " tinctellaGravesend, Dareuth, W. Wickham
 " flavifrontella Cambs, Wither-slack, &c.
 B. grandipennella among furze
 P. Lewenhoekella
 R. Erxlebenella among lime under-wood
 " pronubella ...has occurred in Sutherlandshire
 G. fuscoviridella
 " Haworthella in the N.
 " Schoenicoella, e. in the Norfolk fens, and at the Lizard
 " Fischeriella...
 Æ. dentellaCambs, Sanderstead, &c.
 P. obscurepunctella
 T. sericiella
 " stanneella.....among oak
 A. conjugella ...among mountain ash
 A. mendicella ...on sloe
 " arceuthinella among fir, and juniper
 " præcolella ...Sanderstead
 O. pinariella.....among Scotch fir
 G. alchimiella ...
 " elongellaamong alder, and yew
 " tringipennella...among Plantago lanceolata
 " syringella.....in gardens, among lilac
 " omisellaamong Artemisia vulgaris
 " auroguttella ...among Hypericum quadrangulum
 " imperialella ..Cambs, Dorset
 " Hoffmanniella
 " Kollariella ...
 O. avellanela ...among nut
 " Devoniella ...has occurred near Dawlish
 " anglicellaamong hawthorn
 " betulævorella among birch
 " torquilella ...among sloe
 " Scoticeella.....in mountain ash
 " Loganella ...in the N.
 " guttella.....among apple
 C. albicostella, e. among furze
 " murinipennella...among Luzula sylvatica
 " virgaureella...
 " viminetella ...
 " gramincoella among ragged robin
 " limosipennella among elm
 C. orichalcella, e.
 L. miscella ... among sun cistus
 " epilobiella ...from Aug., among willow herb
 " subbistrigella from Aug.
 C. flavicapitella among hawthorn
 A. modestella ...among Stellaria holostea
 " fuscociliella ...among nut
 C. festaliellaamong blackberry
 A. Pfeifferella ...among Cornus sanguinea
 S. Brunnichella in chalk pits, among Clinopodium vulgare
 E. poellaamong Poa aquatica

IMAGOS]

MAY

- E. Kilmunella ...moors, marshes, and
bogs, among coarse grass
" cinereopunctella many of the genus
are found among carices, coarse
grass, &c.
" trapeziella ...
" Gregsonella...
" nigrella.....
" subnigrella, e.
" humiliella, e.
" Bedellia.....
" perplexella ...
" subobscuraella
" zonariella
" gangabellia, e.
" taeniataella
" obliquella.....Grange
" Megerella.....
" cerussellaamong reeds, in
marshes, &c.
" biatomella ...in wet places
" ruficinerella ...among grass
" subochreella...moors
" cygnipennella, e.
T. marginæa (emyella) among black-
berry
" angusticoella...among rose
L. roborellamany of the genus
are found flying in the early
morning
" hortella
" amyotella.....among oak
" lantanella.....
" trigutella
" quinqueguttella...among dwarf
sallows
" nigrescentella
" irradiaellaamong oak
" Bremiella.....
" insignitella ...Castle Eden, &c.
" lautellaamong oak
" vacciniella ...
" cavellaW. Wickham
" pomifoliella ...among hawthorn,
and apple
" corylellaamong nut
" spinicoella ...among sloe
" faginellaamong beech
" torminella ...
" salicicoella ...among willow
- L. viminetella ...
" carpinicoella among hornbeam
" ulmifoliella ...among birch, &c.
" spinolella
" quercifoliella among oak
" Messaniella ...among evergreen oak
" corylifoliella among hawthorn
" Caledoniella in the N.
" viminiella.....among willow
" alnifoliella ...among alder
" Heegeriella ...among oak
" Cramerella ...among oak
" tenella
" sylvestra (acerifoliella) among maple
" emberizæpennella
" Frolichella ...among alder
" Dunningiella Yorks, &c.
" Nicelliella ...among nut
" Stettinella ...among alder
" Klemannella Preston, &c.
" Schreberella among elm
" tristigella ...among elm
" trifasciella ...among honeysuckle
" scabiosæcolella Surrey
" comparella ...
C. spartifoliella among broom
" laburnella.....among laburnum
" Wailesella ...among Genista
" lotellaamong Lotus major
" lathyrioliella among vetches
" orobiellaScarborough
O. reliquella.....near Thetford
B. aurimaculella among Chrysanthemum
leucanthemum
" cidariellaamong alder
" ulmella.....among oak, &c.
" cratægifoliella...about hawthorn
hedges
" Demaryella ...
" Boyerellaamong elm
" hippocastanella
" cristatellaamong yarrow
N. atricapitella...among oak
" perpygmælla
" pomella
" oxyacanthæcolella
" viscerella
" catharticea...
" Septembrella among hypericum
" intimellaWitherslack, Bristol

IMAGOS]

MAY

N. argyropezella
 " trimaculella ...
 " floslactella ...among nut
 " salicivorella ...among willow
 " myrtillella ...
 " microtheriella
 " betulicolella...
 " ignobilella ...among hawthorn
 " argentipedella
 " acetosellaWitherslack, Isle of
 Wight
 " plagicolella ...
 " prunetella ...Scarboro'
 " tityrella
 " malellaamong wild apple
 " atricolella.....
 " arcuosella.....
 " graciosella.....
 " marginicolella
 " alnetellaamong alder
 " glutinosella ...

N. splendidissimella
 " apicellaamongst aspen
 " ruficapitella ...among oaks
 " castanella
 " luteella... ..
 " æneofasciella Darlington, Witherslack
 " sorbiella
 " aucupariella...among mountain ash
 " ulmivorella ...among elm
 " tilæella
 " centifoliella ...among roses
 T. pulverosella...among wild apple
 P. microdactylus among Eupatorium
 cannabinum
 " tetradactylus
 " Hodgkinsoni
 " pentadactylus among Convolvulus
 arvensis, and Calystegia sepium
 A. polydactyla ...from Aug.

JUNE

OVA]

"The leafy month of June" is one of the most prolific in insect life, and consequently the number of species obtainable is now reaching its maximum. Many eggs laid this month soon hatch, so that vigilance and activity will have to be exercised to secure the kinds which may be desired.

THE WEATHER.—As it is sometimes important, in fixing the time for an entomological excursion, to know the weather we are likely to have, the chief signs upon which it may be fore-casted are subjoined :—

A dark blue sky indicates fine weather.

A rosy sky at sunset, whether clear or cloudy, presages fine weather ; a bright yellow, wind ; a pale yellow, wet ; a sickly-looking greenish hue, wind and rain ; a dark or Indian red, rain.

A grey sky in the morning, fine weather ; red, bad weather, or much wind, perhaps rain ; a high dawn, wind ; a low dawn, fine.

Soft-looking, or delicate clouds foretell fine weather, with moderate or light breezes ; hard-edged, oily-looking clouds, wind. Generally, the softer the clouds, the less wind (but perhaps more rain) may be expected ; and the harder, more greasy, rolled, tufted, or ragged, the stronger the coming wind will prove. Small inky-looking clouds foretell rain ; light-scud clouds driving across heavy masses show wind and rain ; but if alone, they indicate wind only. High upper clouds crossing the sun, moon, or stars in a direction different from the lower clouds, or the wind felt below, foretell a change of wind in their direction. After fine clear weather, the first signs in the sky of a coming change are usually light streaks, curls, whisps, or mottled patches of white distant cloud.

Dew is an indication of fine weather ; so is fog. Remarkable clearness of atmosphere near the horizon, distant objects being rendered unusually visible, is a sign of wet, if not wind.

- | | |
|--|---|
| P. Machaon .....on underside of leaf-lets of <i>Peucedanum palustre</i> , in fens | A. Euphrosyne on dog, and sweet violet ; bluntly conical ; dull greenish at first, afterwards brownish |
| L. sinapis, b. ... on <i>Vicia cracca</i> , and <i>Orobis tuberosus</i> ; long, standing on end, curved, yellow white | " Selene .....on dog, and sweet violet |
| P. cratægi.....on hawthorn, sloe, and orchard trees | M. Artemis .....on scabious, plantain ; upon the underside of leaves nearest the ground ; yellow |
| A. cardamines ...on fl.-stalks of <i>Cardamine</i> , <i>Erysimum</i> , &c. ; bright orange | " Cinxia .....on <i>Plantago lanceolata</i> ; in batches |
| C. Edusa .....white clover (<i>Trifolium repens</i>), lucerne, &c. The egg laid up to this time produces the imago in August | V. cardui, c. ...on thistles ; by preference <i>Cirsium lanceolatum</i> and <i>carduus arvensis</i> ; low down on the plant ; s. nettle |

OVA]

JUNE

- S. Semele.....on Triticum repens
 C. Davus, e.....on Rhynchospora alba
 " Pamphilus ...on small mat grass (Nardus stricta)
 L. agestison Erodium circutarium
 " Alsus, e.on Anthyllis vulneraria; upon the calyx, low down
 " Arion, e.on thyme; at the base of the florets; round, flattened, and depressed in the centre, greenish white; hatch within two or three weeks after being laid
 N. Lucinaon primrose, and cowslip; pale glaucous
 H. Paniscuson plantain
 M. stellatarum...on Galium Mollugo.
 The egg is deposited while the moth is on the wing, curling its abdomen so as to place the egg upon the undersurface of the leaf
 " fuciformis ...on honeysuckle, upon the underside of the leaf
 H. hectuson Pteris aquilina.
 The eggs of the Hepialus are laid loosely over the plant, while the moth is on the wing; at first white, but soon turn black; globular
 " lupulinuson dead nettle, &c.
 " velledaon Pteris aquilina
 " humuli.....on various plants
 Z. trifoliion trefoil, and vetches. The eggs of the Zeugera are laid in heaps; yellow
 " loniceræon clover, & grasses
 " filipendulæ, e. on crowfoot, trefoil, &c.
 C. dominula ...among houndstongue, scattered loosely; rather small
 E. russula..... on plantain, heath, &c.
 C. plantaginis ...on violets, plantain, &c. The eggs of the Chelonia are deposited in regular batches upon the leaves; globular, straw colour
 C. caiaon nettle, & various plants
 " villicaon chickweed, furze, &c.; pearly
 O. pudibunda ...on hop, oak, &c.; in regular batches
 " gonostigma ...on oak, nut, willow, bramble
 B. quercus (callunæ) scattered over heath, bilberry, &c., as the moth flies; globular, large
 E. advenaria ...on dogwood, and probably wild rose, and bilberry
 B. rhomboidaria in crevices of bark of various trees; long, dark green
 P. baiulariaon oak; large, oval, brownish
 E. omicronaria...on maple; oblong, red
 A. remutataon ——? has been laid in confinement upon Polygonum aviculare, which plant the larva will eat; red
 C. temerataon sloe, wild cherry; upon the shoots, and in crevices of the bark
 S. belgariaon heath, upon the shoots; rather large, brick-shaped, lead coloured
 F. pinariaon Scotch fir, and larch; on the higher branches, upon the needles, in a row
 S. dealbata, e.on grasses; bright orange
 S. sacrariaon dock, chamomile, and other Compositæ; long, narrow, oval, and flattened
 L. adustataon spindle; oblong, oval, pinkish brown
 E. albulataon yellow rattle; upon the bracts
 " decolorata ...on fl. of Lychnis dioica; two or three eggs upon a fl.-head; yellow
 M. ocellataon Galium; large
 M. sociata..... on Galium Mollugo.
 Deposited singly on the food-plant

OVA]

JUNE

- M. montanata ...on primrose
 " galiataon Galium sextatile
 A. rubidata, e....on Galium
 C. munitataon groundsel
 C. corylata, e. ...on sloe, lime; large, oval, pearly
 L. griseataon Sisymbrium Sophia
 P. lacertulaon birch; upon the twigs
 " unguicula, b. on beech; upon the leaf, generally on stunted and pollard trees
 D. furculaon willow, poplar; upon upper surface of leaves, in groups of two or three; black, small
 " bifidaon poplars, willows, sallows; upon upper surface of leaves, in groups of two or three; black, small
 " vinulaon willows, poplars, willow; upon upper surface of leaves, in groups of two or three; chocolate brown
 P. palpinaon poplars, and sallows
 N. camelina ... } birch; on underside
 " dictæoides } of leaves; white
 " dromedarius }
 " dictæa } on poplars, and
 " ziczac } sallows
 " trepidaon oak; laid sparsely upon the leaves; pale
 A. leporina, b. ...on the bark of birch, poplar, alder, willow; light purple
 " strigosaon hawthorn; upon the twigs
 " rumicison plantain, and other low plants; upon the leaves
 " myricaon willow; rather large, quite flat on the base, round and globular above, pink, speckled with purple, and a distinct spot of this colour in the centre
 S. venosaon reed grass; upon the leaves, and stems
 L. commaon Dactylis glomerata, and other grass, and sorrel; in clusters upon the stems
 M. albicolonon Atriplex, and Chenopodium
 A. basilineaon immature wheat; in the ears
 A. segetumon Cruciferae, &c.
 " exclamionis on grass, cabbage, &c.
 " corticeaon Chenopodium
 N. plectaon Galium verum, and Asperula odorata
 D. carpophaga, e. on fl.-heads of Silene inflata, and Lychnis
 " capsophila ...on fl.-heads of Silene maritima
 " capsincola ...on fl.-heads of Lychnis, and Silene
 " cucubalion fl.-heads of Silene inflata, Lychnis, and Cucubalus
 " cæsiaon fl.-heads of Silene maritima
 E. luciparaon brake fern, male fern, nettle, plantain, primrose, willow, dandelion, &c.; in a row, upon the back of the leaf
 H. chenopodii ...on Chenopodium
 " rectilineaon willow, bilberry, bramble; upon the leaves
 C. umbratica ...on sowthistle, lettuce; upon the leaves
 A. luctuosaon small convolvulus; upon stems, and fl.-buds
 H. barbalison oak, and birch catkins; globular, pale greenish yellow
 C. pratellusprobably in moss, growing amongst grass; "oval, more pointed at one end, pale yellow, and ornamented with slight longitudinal ridges, connected by slight cross-bars;" probably laid loosely, as it is supposed most of the genus are

LARVÆ

JUNE

Strange and new will be the larval forms of many species which will be met with in this and the last month, if the collector works as the tempting time, which will soon pass away, should prompt him ; and the regular posting up of the entomological diary, with the due labelling of unknown or local species, for future identification, will be highly desirable.

From the end of this month to August, the delicate green larva of *P. Machaon* may be found in fens and marshes, feeding on umbelliferous plants. This, the largest of our Butterflies, never thrives when removed from its marshy habitat ; all attempts to naturalize it in other localities having failed. Towards the end of the month, *G. rhamni* may be found of all sizes on the two buckthorns, *R. catharticus* and *R. frangula*. Sloe bushes in the neighbourhood of woods should be beaten this month for *T. betulæ*.

C. ligniperda may be taken at night by visiting the trees which can be seen to have been bored by this strong-smelling three-year wood-feeder. If roughly handled, it feigns death for some time. *T. cratægi* are extremely various in their appearance. Though hawthorn is their food-plant, they will eat many other plants. They often die whilst changing their fourth skin. *L. trifolii* is seldom found far from the coast ; and when a number are removed from their habitat, there is generally a large per-centage of deaths. *L. griseola*, *L. quadra*, *L. lurideola*, and *M. miniata*, should not be sought for later than the beginning of this month, or perhaps better at the end of May, as all these species are often full-fed at that period, and if left too late, may be found to be ichneumonized.

E. fuscantaria may be beaten from its food-tree, small, at the end of the month. Ash is its favourite food, but it will also eat privet. Old junipers in gardens, shrubberies, and on hills, should be searched to the middle of this month for *E. sobrinata*.

P. palpina has a knack of wriggling off the branch it is on, as soon as the branch is touched. *P. Cassinea* lies close along the petiole of a leaf, and is not easily seen. Though elm and nut are its favourite food, it will eat of almost any tree ; as also will *P. populi*. *P. Cassinea*, although not generally full-fed until this month, is sometimes more forward ; it should, therefore, also be looked for in May.

X. lithoxylea, *M. strigilis*, *M. literosa*, *G. trilinea*, *C. Morpheus*, and many others, may be found on elder, red currant, beans, &c., by visiting them with a lantern at night. *M. oxyacanthæ* is easily found at night. It falls to the ground the moment it is touched. *B. notha* is more frequently found on aspen than sawlow. When full-fed it eats some depth into rotten wood, and then assumes the pupa state.

<i>P. Machaon</i> , e... Peucedanum pa-	<i>P. rapæ</i>.....turnip, and other
lustre, and other Umbelliferæ ;	Cruciferæ, tropæolum, &c.
in fens	" <i>napi</i> .....rapeseed, and other
<i>L. sinapis</i> <i>Vicia cracca</i> , and	Cruciferæ
<i>Orobusterosus</i>	" <i>Daplidice</i> <i>Reseda lutea</i> , and
<i>P. brassicæ</i> .....cabbage, and other	<i>R. luteola</i>
Cruciferæ, tropæolum, &c.	<i>G. rhamni</i>.....buckthorn

LARVÆ]

JUNE

- C. EdusaDutch clover, lucerne, &c.
 A. Paphia, b. ...from Aug., dog, and sweet violet
 " Aglaia, b. ...from Aug., dog, and sweet violet, and wild hearts-ease, on hill-sides, and sea-side sand-hills
 " Adippe, b. ...from Aug., dog, and sweet violet
 " Latonafrom Aug., violet, and wild heartsease
 V. c-albumnettle, elm, hop, sloe, currant
 " urtica, b.nettle; in batches, on the underside of the leaves; green
 " polychloros .. elm, osiers, willow, aspen, Pyrus aria, and fruit trees; s. the eggs are laid in the autumn, and the young larvæ hibernate
 " Antiopawillow, birch, poplar, nettle
 " Ionettle
 " Atalantanettle, generally in sheltered places
 " carduiCirsium arvense, and other thistles; will also eat nettle, mallow, scarlet bean, &c.
 A. Irisfrom Aug., willow, poplar
 E. Medeafrom Oct., moorland grasses
 S. Egeria, 2 grasses
 " Megæra, 2 ...grasses
 " Semelefrom Aug., quaking grass, couch grass, &c.; on dry hill-sides, and sea-shore sand-hills
 " Tithonusfrom Aug., annual meadow grass, &c.
 " Hyperanthus from Aug., Aira cæspitosa, annual meadow, millet, and other grasses, in and near woods
 C. pamphilus ...grasses
 T. quercus, b. ...oak. See last month
 " w-album, b.wych elm
 " prunisloe
 T. betulæsloe, birch; generally on stunted bushes
 P. hippothoe ...great water dock; formerly in the Cambridge fens
 " Phlæasdock, ragwort, sorrel
 L. ÆgonOrnithopus perpusillus
 " Corydonfrom Oct., Hippocrepis comosa, &c.
 " Argiolusholly, and probably also on buckthorn. The eggs have been laid on the fl.-stalks, rather close to the fl.; the larva feeds first on the fl., then on the green berries. Some have been found on the underside of the leaves, in which they had eaten shot-holes. It spins up closely adhering to the underside of a holly leaf; the butterfly appearing in Aug., as the second, or autumnal brood
 H. commaOrnithopus perpusillus, Lotus corniculatus, and other Leguminosæ, in rolled-up leaves
 " lineæfrom Aug., grasses. Conceals itself by drawing the edges of a blade of grass together
 " Actæonin Calamagrotis epigejos
 D. lineataGalium, vine, &c.
 S. chrysidiformis r. of dock, and sorrel. Supposed to be 2 years feeding up
 Z. meliloti, b. ...from July, Lotus corniculatus, vetches, &c.; partial to chalky soils
 N. senexlichens; in fens, and bogs
 " mundanalichens; on top stones of walls
 C. miniatafrom Aug., lichen, on oaks (Lichen caninus); also withered willow, and oak
 L. muscerdalichens, on willow, in fens
 " pygmaealichens, among moss

LARVÆ]

JUNE

- L. caniola Lotus corniculatus, and other Leguminosæ; prefers the fl. On the Continent on lichens upon roofs. Spins up on underside of pieces of bark
- " deplana lichens, on yew, oak, beech, spruce; may be beaten from the trees
- " lurideola from Aug., lichens, on ash and elm
- " complana from Aug., lichens, on sloe, and fir
- " griseola, b. from Aug., lichens on poplar; will also eat withered willow, &c.
- " stramineola (var.) from August, lichens, on sloe, oak, willow, &c.
- " quadra lichens, on oak, beech
- D. pulchella Myosotis arvensis
- C. caia from Sept., various plants
- L. dispar sloe, hawthorn, and various fruit trees
- " monacha oak, beech, birch, fir, apple, &c.; hides in the crevices of the bark
- D. coryli beech, and several other trees; generally beaten from beech
- T. cratægi hawthorn, sloe, willow, birch, oak, plum
- P. populi oak, poplar, lime, ash, hawthorn
- E. lanestris hawthorn, sloe, &c.; in large nests of silk on hedges, &c.
- B. neustria sloe, hawthorn, fruit trees, &c.; in large nests of silk
- " castrensis, e. on Artemisia maritima, and Daucus maritimus; will also eat knotgrass, chrysanthemum, wild cherry, and various trees, if sprinkled with salt water. Feeds in the sunshine
- " roboris from Sept., hawthorn, dogwood, bramble, broom, heath, &c.
- B. trifolii from Sept., trefoil, clover, broom, furze, grass, raspberry, &c.; attached to the coast
- E. versicolora ... birch
- E. vespertaria ... nut
- " apiciaria nut, poplar, willow, willow, alder
- R. cratægata from Sept., hawthorn, sloe
- P. syringaria from Sept., lilac, privet, elder, honeysuckle
- S. illunaria willow, ash, hawthorn, oak, plum, &c.
- " illustraria oak, birch, ash, beech, maple
- E. tiliaria oak, willow, birch, alder, &c.
- " fuscantaria, e. ash, privet; eats round holes in the leaves
- " erosaria oak, birch, &c.
- " angularia oak, birch, ash, beech
- P. pilosaria oak, elm
- N. zonaria on Ammophila arundinacea, and other sand-hill plants
- " hispidaria oak
- B. hirtaria lime, elm, ash, and fruit trees
- A. prodormaria ... oak, birch, elm, nut
- H. abruptaria ... lilac, rose, privet
- C. glabraria lichens, on fir
- B. perfumaria ... ivy, lilac, clematis, &c.
- " abietaria, b. from Sept., larch, and spruce; has been found on whortleberry; will also eat birch, and oak
- T. biundularia oak, birch, &c. Vary very much
- D. obfuscata from Sept., heath, vetch, &c.
- M. cineraria lichens, on walls
- P. cytisaria, b. broom and Genista anglica, on heaths, forests, and waste places on the coast
- I. vernaria, b. from Sept., Clematis vitalba
- H. thymiaria, b. hawthorn, oak

LARVÆ]

JUNE

- H. auroraria, b. from Aug., plantain
 A. strigaria, b. (?) — ? Will eat knotgrass
 „ strigilatafrom Aug., Clematis, Stachys, &c.
 „ imitariaGalium; will also eat sorrel
 P. petrariabrake fern
 S. sacraria.....dock, chamomile
 A. gilvariafrom Sept., Achillea millefolium, &c.
 L. marginata ...sallow, willow, aspen
 H. leucophearia oak, maple
 „ aurantiaria ...oak, birch, hawthorn
 „ progemmaria oak, birch, hornbeam
 A. æsculariaoak, elm, lime, sloe, hawthorn, horse chesnut, apple, privet, &c.
 C. boreatabirch, in a curled-up leaf
 O. dilutataoak, and other trees
 L. multistrigaria Galium
 „ ruficinctata ...Saxifraga granulata, and S. hypnoides; has also been found on fruit trees, peppermint, and sage
 E. consignata ...fruit trees, oak, nut, &c.
 „ pygmæata ... Stellaria holostea, fl.; will also eat Cerastium tomentosum, fl.
 „ pusillataspruce
 „ irriguataoak, sloe
 „ pimpinellata seeds of Pimpinella magna, and P. saxifraga, also Angelica
 „ dodoneata ...oak
 „ abbreviata ...oak
 „ sobrinata juniper
 „ pumilatafl. of Anthriscus sylvestris, gorse, marjoram, asters, clematis, &c.
 L. polycommata honeysuckle, ash
 T. simulatajuniper
 M. rubiginata ...alder
 M. rivataGalium Mollugo
 „ sociataGalium Mollugo
 „ fluctuatacabbage, horseradish, nasturtium, &c.
 A. badiatadog rose
 „ derivatadog rose, honey-suckle
 „ berberata ...barberry
 P. lapidata— ? will eat clematis
 „ vitalbata, e. ...Clematis vitalba
 S. dubitatabuckthorn
 „ vetulata, b. ...buckthorn; between united leaves
 „ rhamnata, b. buckthorn, birch; between united leaves
 „ certatabarberry; between united leaves
 C. immanata ...bilberry, alder, birch, strawberry, &c.
 „ prunatacurrant, gooseberry, sloe, &c.
 „ dotatablack and red currant
 E. cervinaria ...mallow, hollyhock
 „ mensuraria ...grasses
 „ lineolataGalium verum, on the coast; will also eat G. sextatile and G. Mollugo
 C. imbutatacranberry; also eats whortleberry
 C. spartiatabroom; feeds under the leaves, in which it makes holes. Is a cannibal in confinement
 P. lacertula birch; between united leaves
 „ sicalaoak, birch, lime
 „ hamula, e. ...oak, birch
 „ unguicula, e. beech; generally on pollard and stunted trees
 C. spinula, b. hawthorn, sloe, mountain ash
 P. Cassinea, h....oak; s. elm, lime, saw; grips its food-plant tightly
 „ nubeculosa ...birch; stale, dryish food is stated to suit the larva best, in confinement; two years in pupa
 P. plumigera ...maple; will also eat sycamore
 P. palpina, e.willows, sallows, poplars
 N. carnelita.....birch
 „ dictæa, e....poplars, saw, willow

LARVÆ]

JUNE

- T. *gracilis*.....willow, sawlow, low plants
 „ *miniosa*oak, and birch, when young; then hawthorn, and low plants
 „ *munda*oak, elm, poplar
 „ *cruda*oak, nut, sawlow; also other caterpillars
 O. *upsilon*, b.willow, poplar
 „ *lota*, b.willow, sawlow, poplar
 A. *pistacina*buttercup, dock, &c. Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation
 „ *litura*meadow sweet, and other low plants; also oak, willow, alder
 C. *vaccinii*elm, oak, sawlow, willow, and low plants
 „ *spadicea*sloe, hawthorn, and honeysuckle when young; later on various low plants
 S. *satellitia*oak, &c.; between the leaves; also other caterpillars
 D. *rubiginea*.....apple, dandelion, and other low plants
 H. *croceago*.....oak
 X. *citrago*.....lime, between united leaves
 „ *silago*sallow
 „ *aurago*beech; hides in the chinks of the bark
 „ *gilvago*.....wyth elm (seeds)
 „ *ferruginea*sallow, aspen (buds), wyth elm (seeds)
 C. *xerampelina* ash
 T. *retusa*, b.sallow, poplar, willow; between the leaves
 E. *fulvago*.....oak, birch
 D. *oo*oak, between united leaves
 C. *trapezina*oak, birch, hornbeam, &c.; also other caterpillars
 „ *diffinis*elm; between united leaves
 E. *ochroleuca* ...*Dactylis glomerata*
 D. *capsophila* ... *Silene maritima* (seeds); will also eat *S. inflata*; may be found this month in all stages of growth
 P. *xanthomista* *Plantago maritima*, campion, violet, harebell, &c.; found amongst the r. by day; feeds on the fl., &c., at night
 „ *flavocincta* ...chickweed, groundsel, mint, everlasting pea, &c., plum, &c.
 D. *templi*.....*Heracleum sphondylium*; inside the stem, and r.
 E. *nigra**Galium Mollugo*, plantain, dock, chickweed, grass
 „ *viminalis*sallow
 „ *lichenæa*from Nov., ragwort, and various low plants, on the coast
 V. *oleagina*sloe; in shady places, and skirts of woods
 M. *oxyacanthæ* hawthorn, sloe
 A. *Aprilina*oak; hides in bark crevices during the day
 H. *satura*honeysuckle
 „ *protea*, b.oak
 „ *dentina*.....roots of dandelion
 „ *peregrina*.....*Chenopodium*, and *Salsola kali*
 X. *lithoriza*honeysuckle
 C. *solidaginis* ...bilberry; will also eat hawthorn
 C. *vetusta*.....poplar, and various meadow, and marsh plants
 „ *exoleta*.....scabious, campion, rest harrow, dock, *Eryngium maritimum*, turnip, asparagus, &c.
 X. *lambda**Myrica gale*; on moors
 „ *furcifera*, m.alder, birch
 „ *rhizolitha*oak
 „ *petrificata*oak, lime, birch
 C. *verbasci**Verbascum*, and *Scrophularia aquatica*. Most of the *Cucullia* feed in the sunshine
 „ *scrophulariæ* ...*Scrophularia nodosa*

LARVÆ

JUNE

- C. chamomillæ..... chamomile, fl.,
Pyrethrum inodorum, and P.
maritimum. Basks in the sun-
shine. Has been found in
waste places, shipwright's yards,
&c.
- H. armigera.....wild mignonette
- H. arbutiCerastium arvense,
fl. and seeds, forget-me-not, &c.
- A. sulphuralis ...small convolvulus
- A. luctuosasmall convolvulus ;
feeds by night, principally on
the unexpanded fl.-buds
- B. parthenias ...birch ; s. beech, and
oak
- " nothaaspen, saw ; be-
tween united leaves
- P. orichalcea ...Eupatorium canna-
binum
- " bractea.....Eupatorium canna-
binum
- " festuæ.....Carex, reeds, and
grasses ; near the sea
- " iotanettle, dead nettle,
honeysuckle, groundsel, &c.
- " interrogationis nettle
- G. libatrix..... willow, saw, poplar
- A. pyramidea ... oak, elm, birch,
willow
- " tragopogonis hawthorn, larkspur,
columbine (seed pods), and low
plants
- T. cracæVicia sylvatica
- C. nuptawillow, poplar
- " promissaoak
- " sponsaoak
- M. salicalis (?) ...sallow, willow
- " rostralishop
- H. derivalisfrom Aug., among
dead oak leaves
- " cribralis, b.from Aug., Carex
sylvatica, and Luzula pilosa
- P. glaucinalis ...in nest-like forma-
tions on the end of birch twigs.
Larvæ, pupæ, and imagoes are
all found during this month
- C. angustalis ...moss, on sea shores
- P. punicealis ...Nepeta cataria, fl.
heads
- P. purpuralisMentha arvensis,
between the leaves
- " ostrinalisvar. of P. purpu-
ralis ?
- H. cespitalis, e. under leaves of
Salvia pratensis, and Plantago
- A. niveusin a case, under the
leaves of Potamogeton
- P. forficaliscabbage, horserad-
ish, &c.
- S. sticticalisArtemisia, near the
coast
- " cinctalis broom, clover ?
- S. alpinalisSenecio
- S. lineolathe lichens on sloe,
Parmelia parietana, and P.
olivacea
- C. fascinelinus...at Yarmouth, in the
r. and stems of Triticum jun-
ceum, spinning silken galleries
about the r.
- " paludellus ...Typha latifolia
- C. cicatricellus...bullrush
- " phragmitellus from Oct., common
reed
- S. forficellus.....Poa aquatica
- " mucronellus...common reed
- " gigantellus ...common reed
- I. carnella.....Lotus corniculatus,
fl.
- H. binævella, b. in heads of thistles
- H. senecionis ...mines in stems of
ragwort
- E. pinguis.....under the bark of
ash
- N. genistella ...from Sept., furze ;
also Genista Corsica
- P. dilutellathyme
- " subornatella...thyme (Zeller) Glo-
bularia vulgaris (Herr Mann),
between the leaves
- " obductella ...in spun-up leaves of
Origanum vulgare, Mentha
arvensis, Melissa acinos
- R. consociella ...oak
- " advenella ...hawthorn
- " suavellasloe
- O. ahenellaunder the radical
leaves of Helianthemum vulgare
- " tumidellaoak

LARVÆ]

JUNE

- O. rubrotibiella, b. oak
 G. cerellawax, in beehives
 S. Revayana ...sallow (?)
 T. podanarose, fruit trees, &c.
 " rosanaalmost any plant
 " heparanahawthorn, &c.
 " ribeanahawthorn, and al-
 most any tree
 " corylanaplane trees, &c.
 " costana.....figwort, and other
 marsh plants
 " viburnana ...Myrica gale, and
 Vaccinium
 " ictiranaknapweed, plantain,
 and almost any low plant
 " viridanaoak, birch, &c.
 " adjunctana ...ivy, &c.
 C. pilleriana ...vine, and almost any
 plant
 L. literanaoak
 " niveanabirch
 " Boscanaelm
 P. autumnana ...Myrica, willow, &c.
 " comariana ...Comarum, Fragaria,
 &c., in boggy heaths, and fens
 " Schalleriana hawthorn
 " campanana ...
 " Caledoniana Myrica gale
 " variegana.....bramble, hawthorn,
 &c.
 " cristanadwarf willows, and
 hawthorn, between united leaves
 " Hastiana, e. dwarf willows
 " maccanaMyrica gale
 " ferrugana.....birch, oak
 " tristana.....guelder rose
 " aspersana.....Potentilla, meadow
 sweet
 " Shepherdana hemp agrimony,
 meadow sweet, in the tops
 " lipsiana (?) ...Myrica gale
 T. caudanawillow, willow,
 poplars
 D. Bergmanniana, b. rose ; folded
 leaves
 " Foscakaleana ...maple, lime
 P. Lecheana.....sallow, willow, oak,
 honeysuckle, &c.
 P. sellanaheads of Centaurea ?
 Cirsium ?
 G
 P. marginana ...teazle heads, and
 probably in seed-heads of various
 Compositæ, in heaths, and fens
 S. roboranarose
 P. tripunctana ...sloe, &c.
 A. Udmanniana bramble
 S. euphorbiana...Euphorbia paralias,
 heads
 " littoranasea pink
 " lacunanavarious low plants
 " urticanavarious low plants
 " M. Ratzeburgiana spruce fir, ter-
 minal shoots and needles
 P. rugosanaBryonia dioica
 S. subjectana ...various plants
 " virgaureana ...various plants
 " chrysanthæana various plants
 " penzianathe r. of grass, on
 rocks
 S. ictiricana.....almost any low plant
 G. nævanaholly
 " geminana.....in shoots of Vac-
 cium
 H. angustana ...sallow, and willow
 shoots
 P. corticanahawthorn
 " profundana ...oak
 " occultana.....larch, and Scotch fir
 " Solandriana...birch, alder, nut,
 poplar
 " semifuscana...meadow sweet, and
 dwarf willow shoots
 E. fenana.....from Oct., in r. of
 Artemisia
 P. mercuriana ...Dryas octopetala
 P. pinicolana ...in shoots of Scotch fir
 D. politanar. of Achillea mille-
 folium
 " alpinana ? ...tansy, r. ?
 " consortana ...shoots of chrysan-
 themum
 C. maritima.....in stems, or r. of
 Artemisia maritima
 " pupillana ? ...in r. of Artemisia
 maritima
 S. vibranaCarduus acanthoides,
 and C. crispus
 C. scintillulana...Scutellaria galericu-
 lata
 X. Fabriciana ...nettle

LARVÆ]

JUNE

- E. Degreyana ? in seeds of *Linaria vulgaris*
 X. hamanahas been bred from *Ononis repens*
 C. rutilanain a web, among juniper
 L. phryganella...oak, hawthorn, bilberry, &c.
 T. pseudo-bombycella from Oct., lichen, on oak, beech, &c.; in a long, slender case between united leaves
 P. calvella (fusca) from Aug., on bramble; 2 years feeding up
 S. inconspicuellæ on tree trunks, and palings
 P. Verhuellessa in the indusia of *Asplenium ruta-muraria*, and *Scolopendrum vulgare*
 X. argentimaculella powdery lichens, on walls
 T. tapetzella ...woollen cloth, &c.
 " pellionella ...in carpets, cloth, feathers, &c.
 " pallescetella in rabbit, hare, and cat skins
 I. muscellaoak; mines the leaves about this time, then cuts out its case, and feeds on the ground, on all kinds of plants
 I. Zinckenella ...in birch leaves
 S. comptella.....sloe, and plum
 S. cratægella ...hawthorn, sloe
 Y. viginipunctella, e. *Sedum telephium*
 " plumbella ...spindle
 " irrorellaspindle
 " padella.....hawthorn, apple, &c.
 P. xylostella.....turnip, &c.
 " porrectella ... *Barbara vulgaris*, *Hesperis matronalis*
 " annulatella ...*Cochlearia*
 " Dalella.....*Arabis*
 H. vittellaelm
 Y. sylvellaoak
 " alpellaoak
 " lucellaoak
 " horridella.....apple, sloe
 H. scabrella.....apple, hawthorn
 H. nemorella ...honeysuckle
 P. caudellaspindle
 O. sparganiella....stems of *Sparganium*
 P. quercellaoak, and between leaves of willow
 E. Allisella*Artimisia vulgaris*
 D. costosella.....furze, broom, and *Genista* fl.
 " liturellaknapweed
 " pallorella ...in leaves of *Centaurea scabiosa*
 " umbellella ...furze
 " assimilella ...broom
 " arenella*Anthriscus*, thistles, and knapweed
 " subpropinquella thistle
 " Alstræmeriella hemlock
 " vaccinella.....wild carrot
 " capreolella ...wild carrot
 " hypericella ...*Hypericum*
 " conterminella shoots of willow
 " angelicella ...*Angelica*
 " Yeatesiella ...wild carrot
 " applanella ... wild carrot, and most *Umbelliferae*
 " granuloseella...*Anthriscus vulgaris*, *Chærophyllum*, and other *Umbelliferae*
 " depressella ...seed-heads of wild carrot
 " pimpinella ...*Anthriscus*
 " albipunctella *Chærophyllum*
 " cnicellain *Eryngium maritimum*, and *E. campestris*, on the Continent
 " pulcherrimella *Bunium flexuosum* fl.
 " Weirella*Anthriscus*
 " chærophyllivorella *Chærophyllum*
 " ultimellawild parsnip
 " nervosella ...parsnip, and *Cenanthus crocata*
 " herachiella ...thistle, *Heracleum*, and parsnip
 " olerellaon *Achillea millefolium*
 P. gibbosella ...sallows
 G. rufescentella in grasses
 " nigraon *Populus nigra*, and *P. tremula*

LARVÆ]

JUNE

- G. temerella...sallow shoots
 " lentiginosella Genista
 " alacellalichens, on fruit trees
 " artemisiella..... thyme, between terminal leaves
 " albipalpella...Genista anglica, between united leaves
 " affinellaunder moss, on old walls
 " rhombella ...in wild apple leaves
 " maculella.....in seeds, and shoots of Stellaria
 " Hubnerella (?) in oak tumps
 " ocellatella ...Beta maritima, fl.
 " atriplicella ...Atriplex, and Chenopodium
 " leucatella.....hawthorn, apple, mountain ash
 " albicapitella Genista anglica
 " vorticellaLotus corniculatus
 " tæniolella ...Lotus corniculatus, and other Leguminosæ, between united leaves
 " sircomella? ...Cerastium vulgatum
 " atrellain Hypericum stems
 " næviferella ...in leaves of Atriplex, and Chenopodium
 " Hermannella in leaves of Atriplex, and Chenopodium
 " subdecurtella Lythrum salicaria
 " ericinellaheath
 " Knaggsiella, b. in seed capsules of Stellaria holostea
 P. neuropterella from Oct., in heads of Cirsium acaule
 C. striatellatansy, in the stem
 C. conscriptella? birch
 A. spartiella.....furze
 N. Durdhamella Origanum, in rolled-up leaves
 A. granitella ...Inula dysenterica, in the leaves
 G. Haworthella Eriphorum, seeds
 " equitella ...in shoots of Sedum acre
 A. spinellain mountain ash
 " sorbiella ...mountain ash, shoots
 C. farinatella ...Scotch fir, in the leaves
 O. pinariella ...Scotch fir, in the leaves
 Z. saxifragæ, b. on Saxifraga azoides, &c.
 G. stigmatella ...in willow, poplar
 " tringipennella in plantain
 " syringella.....ash, privet, and lilac
 " auroguttella...willow herb, and Hypericum
 " Kollariella, e. mining leaves of broom
 C. Brogniartella oak
 C. alcyonipennella Centaurea, broomdock, and thistles
 " vibicellaGenista tinctoria
 " conspicuella...Centaurea nigra, &c.
 " pyrrhulipennella heath
 " anatipennella sloe
 " niveicostella...thyme
 " genistæcolella Genista anglica
 " saturatella ...from Sept., broom
 " onosmella, b. Echium vulgare
 " troglodytella Inula dysenterica, Eupatorium cannabinum
 " murinipennella rushes
 " albitarsella ...Origanum
 " nigricella.....hawthorn, sloe, apple
 " gryphipennella rose
 " viminetella ...sallow, and osier
 " lutipennella...oak, birch
 " ardeæpennella, e. oak
 " artemisiella .. Artemisia
 B. præangustella willow, poplar; between united leaves
 O. v-flavellain fungi, and wine corks
 C. Illigerella, b. Ægopodium podagraria, in crumpled leaves
 " chærophyllella, e. most Umbelliferæ
 L. miscellasun cistus
 " conturbatella Epilobium angustifolium, among terminal leaves
 " epilobiella ...Epilobium hirsutum, tops
 " decorellain stems of Epilobium montanum, E. parviflorum, E. palustre, E. hirsutum, &c., producing gall-like swellings
 H. RösellaAtriplex and Chenopodium

LARVÆ]

JUNE

- A. modestella ...in seeds of Stellaria
holostea
A. Pfeifferella .. dogwood
E. atricomella ...in stems of Dactylis
glomerata
" Megerlella ... in Brachypodium,
Bromus, Aira, &c.
" adscitellain Sesleria cærulea,
and Aira cæspitosa
" rhyncosporella Eriphorum, and Carex
" triatomella ...in a fine grass
" pollinarjella...Brachypodium syl-
vaticum
" cygnipennella Dactylis glomerata,
and other grasses
T. margineain bramble
L. quinqueguttella in dwarf sallows
P. suffusellain poplars
" salignella.....in willows
C. Walleisella ...in Genista tinctoria
B. maritimella ...Tripolium vulgare
" artemisiella ...Artemisia campes-
tris, and yarrow
N. sericopeza ...sycamore
" poteriella.....Poteriam sanguisorba
N. centifoliella...Rosa centifolia, and
R. canina
" ulmivorella ...elm
T. pulverosella in wild apple
P. rhododactylus in fl. of rose
" Bertrami, b. Achillea millefolium,
and A. ptarmica
" acanthodactylus Bartsia, and rest
harrow
" hieraciiHieracium umbella-
tum, and Teucrium scorodonia,
first biting through the stems,
and causing the leaves to wither
" lætusAudryala sinuata,
on the Continent
" pilosellæHieracium pilosella
" phæodactylus rest harrow
" Lienigianus...Artemisia vulgaris
" spilodactylus Marrubium vulgare
" brachydactylus Lactuca muralis,
&c.
" baliodactylus Origanum vulgare
" tetradactylus...thyme
" dichrodactylus tansy
A. polydactyla...honeysuckle, buds

PUPÆ]

The various modes in which the metamorphosis of pupation is carried out in the Lepidoptera constitute a most interesting subject of study ; and in the months succeeding those most prolific in insect life that variety is seen to perfection. The forms, indeed, seem—

"Numerous as shadows haunting fairly
The brain, new stuff'd, in youth, with
triumphs gay
Of old romance."

The peculiar mode of concealment known as "the cocoon," variously worked out, is more especially seen in the summer months, at least in the species we have been able to tabulate ; while in those changing towards the autumn the subterranean form becomes more common. While some species are remarkable for the little trouble they take in effecting this change—simply spinning a few threads, or even dispensing with these—others are conspicuous for the care and labour they put into the work. Although some of the changes are peculiar to some families, it is found to be impossible to make simple form of pupation a basis for classification. While some cocoons are as flimsy as a cobweb, others are as tough as horn, with intermediary forms of texture both numerous and remarkable ; yet all are the result of fluid exudations woven into form and substance by the caterpillar. While the pupæ of some, even

PUPÆ]

JUNE

of the commonest species, are conspicuously exposed without covering, and therefore fully open to injury or destruction, those of others are carefully swathed in silk, and surrounded by almost indestructible coverings, and ingeniously concealed, or buried in the earth,

"Far from the sun and summer gale."

It is the business of the collector, by acquiring a knowledge of the habits of as many species as possible, to learn their secrets, and "by his so potent art," to bring them to the light of day, for his own and others' advantage.

- A. Paphia on a stem of bramble, or some low shrub, in woods
 " Aglaia, e. ... among violet, and wild heartsease, on hillsides, &c.; suspended by the tail within an enclosure of spun leaves, on the top of the plant, or attached to stalks of bent grass, &c.
 " Adippe among, or near violets
 " Latona among dog violet, or sweet violet
 M. Athalia, b. ... suspended, among plantain, &c.
 V. c-album, b. ... suspended, among nettle, and on walls, &c.
 " urticæ suspended, among nettle
 L. sibylla, e. ... suspended, on stems of fern, underside of leaf of honeysuckle, &c.
 A. Iris has been found suspended from underside of oak, and saw leaf, and neighbouring objects
 A. Galatea attached to timothy, and other grass
 E. Medea, e. ... among moorland grass, near the ground
 S. Semele under r. of Aira, and Triticum, and clods, on dry banks
 " Ianira } attached to a Hyperanthus, e. } blade of grass, &c.
 C. Davus among, or near Rhynchospora alba; freely suspended
 T. w-album, b. at wyth elm; fastened on a leaf, or twig
 L. Ægon, e. among Ornithopus perpusillus, at the base of the plant-stems
 " Artaxerxes, b. slightly attached to stems of sun cistus, near the ground
 Z. æsculi in r., branch, or twig of elm, pear, &c.
 L. asellus spun up, on a leaf
 P. statice spun up, on sorrel
 Z. minos oval cocoon, attached to stones
 " trifolii cocoon on stem of grass, &c.; yellow
 " meliloti cocoon on grass stems, &c.; pale yellow
 " lonicera cocoon on stem of grass, &c.; some yellow, some white
 " filipendulæ ... cocoon on stem of grass, &c.; white
 N. albulalis probably in the leaves of bramble, or ash
 S. irrorella, b. ... in a slight web, under stones, oyster, cockle, mussel shells, &c., covered with ground lichen; on the coast, just above the tide mark
 C. miniata ... spun up, under moss, on lichen-covered trees
 L. deplana spun up, on lichen-covered trees
 " lurideola spun up, on lichen-covered trees, and old walls
 " molybdeola ... spun up, under stones, or moss
 " complana under moss, on lichen-covered sloe, and fir, and on rocks, on the sea shore
 " griseola under moss, on lichen-covered poplars, &c.

PUPÆ

JUNE

- L. quadra, e.....on palings, near lichen-covered trees, in crevices of bark, or between leaves
- E. grammica ...cocoon between leaves of food-plant
- C. dominula.....spun up, near its food-plant
- C. caiain a slight cocoon, amongst leaves, &c.; on palings, &c.
- L. chrysorrhæa in a slight cocoon, amongst leaves, &c.
- „ aurifluain a slight cocoon, on palings, &c.
- O. fascelinaspun up, among dwarf willow
- E. lanestris, e.to Jan.; hard, oval cocoon on the ground, near hawthorn, sloe, &c.; s. remains in pupa many years
- B. neustriain cocoon among, or near sloe, hawthorn, and fruit trees
- L. quercifolia ..in a dark, papery cocoon, amongst leaves, &c.
- O. potatoria.....papery cocoon, on, or near coarse grass
- O. sambucata ...cocoon, hung among ivy, &c.
- E. vespertaria under moss, on nut, &c.
- „ apiciariaunder moss, on poplar, willow, willow
- M. margaritata at various trees; on the ground
- P. syringaria ...fastened to a twig, or under a leaf, or blade of grass; the caterpillar skin is often found hanging from the long-tailed pupa
- C. elingaria ...between leaves of honeysuckle, hawthorn, sloe, &c.; on the ground, or under moss
- E. angularia.....under moss, on oak, birch, beech, &c.
- N. zonariasub., on sand-hills
- „ hispidaria ...to Jan., at oak
- C. glabrariaat fir
- B. abietariasub., at larch, and spruce
- G. papilionaria, b. in a transparent cocoon, among leaves, and moss, on various trees
- I. vernariain loose cocoon, amongst leaves, in, or near Clematis vitalba
- A. rusticatasub., at — ?
- „ incanariasub., at — ?
- „ ornatasub., near thyme
- „ straminata ...on heaths, in a loose cocoon, near, or on the ground
- „ emutariain marshy places
- „ inornataspun up, among leaves of poplar, willow, and heath
- H. vauariaspun up, among leaves of gooseberry, currant, &c.
- S. dealbatain shuttle-shaped cocoon, on grass stems
- A. grossulariata, b. between united leaves of gooseberry, currant, sloe, nut, &c.
- E. subciliata.....about maple
- „ rectangulata on apple, and crab; under moss, and loose bark
- T. firmata.....in a cocoon, among fir
- Y. elutata, b. ...amongst seed-down of willow, and moss, &c., on nearly every kind of tree
- C. sagittataspun up, about Thalictrum, or on the ground, near; in fens
- „ prunataon currant, and gooseberry; between leaves
- „ testataspun up, among leaves of birch, willow, poplar; generally on heaths, in the North
- C. spinula.....spun up, among hawthorn, and sloe
- C. curtula.....spun up, between dead leaves of poplars, and willow
- P. palpinaat willows, and poplars; on edges of streams; or under sods
- L. impuraamong Dactylis glomerata; on the ground

PUPÆ]

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- X. polyodon, b. under clods, and stones
 M. abjecta.....under clods, and stones, in an earthen cocoon
 A. unanimitis.....under bark of willows; in damp places, and among decayed willow wood
 M. arcuosa, b.at the crown of r. of *Aira cæspitosa*
 " ripeæ, b.sub., near *Cynoglossum officinale*; on the coast; found by raking sand-hills
 " cursoriaby raking sand-hills, on the coast
 T. Orbonaamong broom, and low plants; on the surface
 O. upsilon, b.under bark, or spun up, at r. of willow, and poplar
 C. xerampelina sub., at ash; cocoon very tender, and brittle; s. the larva remains unchanged in the cocoon for several weeks
 T. subtusasub., at poplar
 E. fulvagospun up, in dead leaves, &c.; and probably s. sub., at oak, and birch
 D. ooat oak, on the ground; in an oval cocoon
 C. trapezina, e. at oak, birch, hornbeam, &c.; among leaves, on, or near the surface
 D. capsophila ...to April, sub., about *Silene maritima*; on the coast
 " capsincola ...to April, about *Silene maritima*; on the coast
 E. viminalissub., near willow
 " licheneasub., by *Sedum acre*, &c.; near the coast
 P. bractea.....near the r. of *Eupatorium cannabinum*
 " festuæ.....amongst grasses, reeds, &c.; near the coast
 P. iotaamongst the leaves of nettle, dead nettle, &c.
 A. pyramidea, b. at oak, elm, birch, willow; cocoon on the ground, in spun up, withered leaves, &c.
 M. mauraspun up, under loose bark, &c.
 C. sponsa, e.at oak; among the leaves on the tree
 H. cribralisamong willow, *Luzula pilosa*, and *Carex sylvatica*
 P. glaucinalis ...among birch twigs
 C. fascinelinus...in cocoons, just under the sand, among *Triticum junceum*
 A. lotellaamong *Festuca ovina*, and *Aira canescens*
 G. canella.....from Oct., among *Salsola kali*
 H. quercana.....in a boat-shaped, light green cocoon, amongst oak leaves
 A. Bennetiion *Statice limonium*
 P. ochrodactylus on tansy
 " parvidactylus on thyme, and hawkweed
 " plagiodactylus on scabious, and speedwell
 " fuscodactylus on speedwell
 " lithodactylus on fleabane
 " tephrodactylus on golden rod, in shady places
 " osteodactylus on golden rod
 " galeodactylus on burdock
 " pentadactylus on convolvulus
 " spilodactylus, e. on *Marrubium vulgare*
 " tetradactylus on thyme
 " pentadactylus on convolvulus
 " dichrodactylus on tansy

IMAGOS]

Every available place where the Lepidoptera "most do congregate" will now, during this, the most prolific month in the year for the perfect insect, be eagerly scanned by the collector desirous of making the best use of his time. The sun is near his meridian, and long and brilliant days promise excellent sport, if we are only properly endued with that "fiery quality,"

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energy. As some species can be more readily taken early on sunny summer mornings, the hours of sleep should not be unduly prolonged. Some stern poet cynically says :—

“ Nature requires five ;
Custom gives seven ;
Laziness takes nine ;
And wickedness eleven ! ”

And though we shall, of course, meet with many species “ of no mark or likelihood,” we can scarcely fail in a fair locality to be rewarded with some good prizes. Many butterflies commence flying at seven o'clock in the morning on hot days. In day searching, the beating-stick will be a *sine quâ non* ; but low bushes and herbage should not be beaten from the top, but rather from beneath, otherwise many species which are concealed therein are only driven lower down. Not much good will attend the beating of thatch this month. The food of the larvæ of the species required, especially where it occurs in some plenty, should have special attention paid to it. Flowers, especially *Silene*, *Lychnis*, honeysuckle, and ragwort, are often a great attraction. The lime, and other trees which blossom this month, should be sought for and examined. *Cossus* infected trees, and gummy exudations from fruit trees are alike a fascination, both for butterflies and moths. Day sugaring, as well as by night, has been recommended, and where flowers are scarce is generally successful. Many species may be smoked out of grass, bushes, and banks by ignited touch-paper. Among those species which do not travel quietly when boxed are *T. rubi*, *H. hectus*, *A. velleda*, *C. plantaginis*, *T. derasa*, and *T. batia*.

At that charming time, when

“ the twilight shadows grow,
And steal the rose-bloom genial summer sheds,”

many species start out from their hiding places, and remain on the wing for a short time only. Then is the “ witching time ” to catch them ; and in some favoured places local species appear in swarms at such times.

At night, when

“ The dark, delightful woods lie veiled and still,”

many fragrant flowers become extra fragrant, and additionally attractive to moths. The following are more especially of this character :—Wallflowers, lime blossoms, the butterfly orchis, the fragrant orchis (occurring on chalky heaths) the musk mallow, and the yellow bedstraw. The lure of “ sugar,” too, at this time may be used with advantage, especially where there are few flowers ; or the flowers themselves may be sugared, more particularly in places where there are no trees. Large bare tracks may be thus made to yield a good harvest. If pieces of white paper are placed near the trees, &c., when they are sugared, they may be readily seen and identified in the dark in the successive visits which are paid to them in the course of the night. The French are said to use putrid soapsuds as a bait, as the sugar in France, which is made from beet, is not attractive, from having no smell. Artificial light is also a great means of capture. A bright light placed near a partially-open window is recommended.

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Many species may be found at rest on tree trunks, and palings and fences near. *S. fagi* is a prize well worth the search. It rests almost as if set out on the tree, and from the light brown of its ample, serrated wings forming a contrast to the dark trunk on which it rests, it can sometimes be discovered a good distance off. It is useless looking for it (or indeed for any other species which rest on trunks) among very young trees. The difficulty generally is in first finding a species, as the eye does not exactly know what it is looking for, and mistakes many of the stains and marks on trees and palings for insects; but having once seen the desiderated species, the eye, thus educated, will ever afterwards quickly detect it. The number of markings on trees and wooden fences which resemble moths is surprising; but when we know the species we are looking for, and the exact appearance they present when spread out flat, as they generally are, little difficulty is felt in rapidly making a thorough examination of a large number of trees. After having looked at a tree or fence, and found nothing, it is desirable to give it a parting tap with a stick; like the magic wand of a harlequin it will sometimes bring forth something we little expected.

- P. Machaon* ...fens, and marshes
P. cratægi, e. ...near woods, &c.
 " *brassicæ* ..gardens, &c.
 " *rapæ*gardens, &c.
 " *napi*gardens, &c.
A. cardamines...fields, &c.
C. Edusalucerne, and clover fields, and railway banks; fond of fl.
A. Paphia, e. ...woods
 " *Aglaia*, e. ...hillsides, coast sand-hills, &c.
 " *Niobe*, ♂ b. ...hillsides, in company with *Aglaia*, or *Adippe*. Has occurred in Kent, the New Forest, and near Windermere
 " *Adippe*, e. ...woods
 " *Euphrosyne*, b. woods, &c.
 " *Selene*woods, &c.
M. Artemiswet meadows
 " *Cinxia*
 " *Athalia*woods, and heaths
V. c.-album, e. gardens, hopgrounds, &c.
 " *urticæ*, e.gardens, fields, &c.
L. sibylla, e. .. woods, parks, forests
E. epiphronin marshy hollows, on mountain sides
S. Ianira, e.fields, &c.
 " *hyperanthus* woods, &c.
C. DavusNorthern moors
 " *Pamphilus* ...fields, &c.
T. w.-album, e. flies over trees, and is attracted by fl. of bramble, lime trees, grass, &c.
 " *pruni* woods, at fl. of privet, &c.
P. Phlæasfields, lanes, coast sand-hills, &c.; at fl.; rests on sorrel, &c., at night
L. Artaxerxes (var.) at St. Arthur's seat, &c.
 " *agestis*hilly fields, &c.
 " *Alexis*fields, hills, &c.; rests on grass stalks, &c., in dull weather, and at night
 " *Alsus*hilly fields, railway banks, coast sand-hills, &c.
 " *Arion*dry, hilly fields, where thyme abounds, and deserted stone quarries, in hilly districts; rests on grass stems, &c., in dull weather, and at night
N. Lucina, b. ...woods, and banks near, where primrose abounds
H. sylvanuswoods, hills, &c.
 " *Paniscus*, e.woods
S. ocellatus
 " *populi* } on trees, palings,
 " *tiliæ* } &c., come to l.
 " *ligustri* }
D. euphorbiæ ...has occurred on the coast, and at Killing, Ireland, among *Euphorbia*

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- C. porcellusmay be found on patches of *Galium verum*, or on the ground, near; hovers over fl. at early dusk, and comes to sugar
- " elpenorat honeysuckle, yellow flag, and other fl., and at light
- " nerii
- M. fuciformis, b. flies in the sunshine, and hovers over fl., from 9 till 11 a.m., and 3 to 4 p.m.
- " bombylifformis flies in the sunshine, and hovers over fl., seldom after 1 or 2 p.m.
- S. myopæformis on old apple, and pear trees, and fl., bushes, and palings near
- " culiciformis...on birch
- " formicæformis, b. in, and near withy beds; flies in the sunshine; fond of sunning itself on leaves
- " chrysidiformis, e. on the S.E. coast; flies from about 9 to 11 a.m., and 3 to 4 p.m.; "booms along like a burnet"
- " ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast; hovers over fl.
- " cynipiformis...at rest, on oak; s. in coppices
- " muscæformis on the coast, among sea pink
- " tipuliformis.....among currant bushes; flies in the sunshine, and rests on the leaves
- " scolæformis...
- " sphegiformis, b. at rest, on alder, and low plants; hovers over fl.; also flies in the evening
- " asiliformis ...
- " apiformis.....on poplars; liable to be mistaken for a hornet
- M. arundinis ...among reeds; emerges from the pupa generally at about 10 p.m.
- Z. æsculion trees, &c.
- C. ligniperda ...on trees, and palings
- H. hectusflies at dusk
- H. lupulinus.....flies just before dusk
- " velleda.....on walls, and in crevices of birch trunks
- " humuli.....in fields, &c.
- L. asellus, e. ...
- " testudo.....may be shaken from young oaks; the ♂ flies in the sunshine
- P. statice, b. ...in damp meadows
- " geryonon grassy hill-sides; flies in the sunshine
- " globulariæ, m. in grassy places; very local; generally appears on the 14th, or 15th
- Z. minosflies in the sunshine, during the early part of the day; afterwards rests on fl.
- " nubigenaflies in the sunshine
- " trifoliiflies in the sunshine
- " meliloti, e. ...smaller, slenderer, and less densely clothed than trifolii, and the marginal border of the hind wing narrower
- " loniceræflies in the sunshine
- " filipendulæ ...flies in the sunshine
- S. phegeaon old ramparts
- N. ancilla
- N. cucullatella...at rest, on trees, and palings
- " confusalis.....at rest, on trees, &c.
- " strigula.....
- S. irrorellaon the coast
- L. mesomella ...on trees, &c.
- " aureola, b. ...rests on larch trunks, high up, and may be beaten from trees
- " deplanabeaten from yew, larch, &c.
- " lurideolaat fl.
- " griseolacomes to fl.
- " stramineola (var.) by damp wood-sides, ditches, and fens
- " rubricollis ...flies in the sunshine, over trees, &c.; s. perches on grass
- E. grammica, e. on heaths
- D. pulchella.....has been taken in fields, flying by day
- E. jacobææ, e. ...gardens, fields, &c.; flies in the sunshine

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JUNE

- C. dominulaat rest
 E. russulaon heaths
 C. plantaginis ...on hills, and in woods near
 " villica, e.comes to l.
 A. fuliginosa.....
 " mendica, b. ...at rest
 " lubricepeda ...gardens, &c.
 " menthrasti ...gardens, &c.
 " urticaein wet places
 L. disparformerly found at large, but now the breed seems to be entirely maintained artificially
 O. pudibunda ...in gardens, &c.; flies about 11 p.m.
 " fascelinaon heaths, &c.
 " cœnosa.....fens, and marshes
 " gonostigma ...local
 D. corylibeech woods, &c.
 B. rubiheaths, &c.; s. flies in the afternoon sunshine, and in the evening
 " roboris, e. ...flies at dusk; more frequently met with in the larva state
 L. quercifolia ...hedges, &c.
 E. vespertaria ...flies from 7, to 9, or 10 a.m.
 " advenaria ...among bilberry, and grass, in wood ridings; hides low down in the herbage, but is easily disturbed
 R. cratægata ...hedges, &c.
 V. maculatawoods; flies by day
 A. prunaria, m. woods; flies in the sunshine, also at dusk
 M. margaritata hedges, &c.
 E. fasciaria, e. ...beaten from fir trees; flies at night
 E. dolobrararia, b. woods; rests exposed on leaves of bushes, &c., and may be beaten from oak
 P. syringaria ...gardens, &c.; flies at dusk, over fl.
 S. lunaria, b.woods
 A. betulariaat rest
 H. abruptaria, b. gardens, &c.; at rest, on palings, tree trunks, &c.; comes to l.
 C. viduaria
 " lichenaria, e. on lichen-covered oak trunks
 B. repandata .. gardens, &c.; comes to sugar; rests on tree trunks
 " rhomboidaria gardens, &c.; on palings, and trees
 " perfumaria ...
 " cinctariaon tree trunks
 " roborariaon oak trunks
 " consortaria ...on tree trunks
 T. extersariaat sugar
 " punctulata, b.
 B. fuliginaria
 P. cytisariaheaths, forests, and waste places, on the coast; beaten from broom, furze, and heath
 G. papilionaria, e. woods, forests, fens; flies at dusk; may be beaten from trees, in the day time; has been found among brake fern
 N. viridata, b....mosses, and fens
 I. lacteariawoods; flies by day; soon fades
 P. baiulariaflies at dusk, 10 or 12 feet high; the ♀ attracts the ♂
 H. thymiararia ...beaten, from hedges
 E. porata, b. ...woods
 " punctariawoods
 " trilinearia ...flies in the sunshine, among beech
 " omicronaria...beaten, from maple
 " orbicularia ...beaten, from birch
 " pendularia ...woods; beaten, from trees
 H. auroraria.....in fens, &c.
 A. luteata.....woods
 " candidata.....woods
 " sylvata.....woods
 " Blomeraria ...on wooded hill-sides, near wyth elms; at rest, on tree trunks; soon disturbed
 E. heparataamong alder
 V. cambricaria, e. at rest, on rocks
 A. ochrataon the Kent, and Essex coasts
 " perochraria ...near Redhill
 " rubricataheaths, and sand-hills; flies at dusk

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JUNE

- A. scutulatahedges, &c.
 " bisetatahedges, &c.
 " trigeminata ...
 " contiguaria ...Conway, Bangor, &c.
 " herbariata ...has been found in
 herbalists' shops
 " osseataPortland, among
 various plants. The Isle of
 Portland is an excellent locality
 for the *Acidalia*
 " dilutaria, e....
 " interjectaria....Bristol, & Thetford
 " incanariaon palings, &c., near
 gardens
 " circellata ...near Manchester
 " ornata ...on grassy hill-sides,
 &c.
 " promutata ...woods
 " straminata ...
 " subsericeata beaten, from wild
 rose
 " strigaria (?) ...bushes, on hills
 " immutata.. ...fens, &c.
 " remutatawoods
 " fumataheaths, in the North
 " emutariasalt marshes of Kent,
 Norfolk, and New Forest.
 Flies at dusk. The Sheerness
 specimens are more tinged with
 rose colour than the others
 " aversatawoods, &c.
 " inornata, e....found on fir trunks.
 Flies at dusk
 " degeneraria...at rest, on various
 plants, and the face of the rock
 at Portland
 emarginata, e.
 T. amatarialanes, and fields
 C. pusaria ... } woods
 exanthemaria }
 C. temeratawoods, &c.; near
 wild cherry and buckthorn
 taminatawoods
 M. alternata, b. woods
 " notatawoods; on birch
 trunks
 " liturata.....beaten, from larch
 S. clathrataclover, and saintfoin
 fields, &c.
 P. petraria
- N. pulveraria ...
 S. belgariaon heaths
 F. atomariafields, woods, heaths,
 fens
 " piniariaflies in the sunshine,
 round fir trees
 " pinetariaScotch heaths; flies
 in the sunshine
 " conspicua...on broom
 M. euphorbiata woods
 S. dealbataflies in the sunshine
 L. purpuraria ...on dry hills, in the
 North; flies by day
 A. grossulariata gardens, and hedges
 ulmataedges of woods
 L. adustataamong spindle
 L. marginata ...woods
 L. didymata.
 " cæsiata.....Scotland. Comes to
 sugar
 " salicata, b. ...
 " olivatawoods
 " pectinitaria ...in hedges; comes to
 sugar
 E. affinitatabeaten, from bushes,
 near woods
 " alchemillata...
 " albulataamong yellow rattle
 " decolorata ...flies at dusk, at fl. of
Lychnis dioica
 " tæniata, e. ...
 " unifasciata ...at l., has occurred
 at Forest Hill, West Wickham,
 and Cheltenham
 " ericetataat fl., on heaths;
 flies by day
 " blandiata
 E. venosataamong *Silene inflata*,
 and *Lychnis*, and on palings
 near
 " consignata...in apple orchards;
 rests on the trunks
 " linariataamong toadflax
 " pulchellata ...among foxglove
 " centaureata ...on palings, &c., and
 among ragwort
 " subfulvata ...at fl.
 " subumbrata ...Cams, Yorks
 " plumbeolata.. at l.
 " isogrammata

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JUNE

- E. pygmaea ...flies in the sunshine, among long grass, and settles on low fl.
 " satyrata
 " egenata
 " castigataon palings, &c.
 " valerianata ...among valerian
 " trisignata
 " lariciataamong larch
 " virgaureata, b.
 " albipunctata
 " irriguatabeaten from trees ; also at rest, on birch trunks
 " fraxinataamong ash
 " indigatain fir woods
 " innotataat Wallasy
 " nanataon heaths
 " subnotataoften on the banks of rivers
 " campanulata at fl., in woods, &c.
 " absynthiata ...
 " knautiatahas been taken by Mr. Gregson at Bull Hill, Bolton
 " tenuiatabeaten, from fallows
 " dodoneata ...flies in the early morning sunshine
 " exiguata
 " togataat rest, on tree trunks
 " rectangulata at rest, on apple, and pear trees, and palings
 " debilitatamay be beaten from grass, on wood-paths
 C. sparsataflies round fallows, in the evening
 L. sexalataon tree trunks, in hedges, and by beating
 " viretataon birch, and fir trunks
 T. variataamong larch
 Y. ruberata
 " elutata, e. ... woods ; flies high, when disturbed
 M. ocellata
 " albicillata ...
 M. hastatamay be beaten, from birch, and other trees ; flies in the sunshine, generally after 2 p.m. When flying high, it may be brought within reach by throwing a clod, &c., at it, as it is very combative
 M. procellata ...may be beaten, from clematis
 " unangulata ...beaten, from hedge-banks
 " montanata ...woods
 " galiatabeaten, from bushes
 A. sinuataCams
 " rubidata
 C. munitatafond of settling on the underside of fallen trees
 " propugnata ...woods
 " ferrugatawoods
 " unidentaria ...
 " quadrifasciaria, e. on palings, &c.
 C. bilineatahedges
 P. tersataamong clematis
 " lignata
 " vitalbata, b.among clematis
 S. vetulataamong buckthorn
 " rhamnata ...among buckthorn, and at light
 " certataamong barberry, and at rest on palings, &c.
 " undulatawoods
 C. picatabeaten, from bushes
 " corylatawoods
 " russatawoods
 " silaceaamong willow herb
 " prunata
 " fulvatabeaten, from bushes
 " dotata, e.near woods
 E. mensuraria ...in grassy woods
 " palumbaria ...at light
 " lineolatarests on coarse grasses, on the coast
 A. plagiata
 L. griseataon the Norfolk coast, among *Sisymbrium*
 S. obliquaria ...among broom ; does not fly till between 10, and 11 p.m.
 T. chærophyllata flies in the sunshine, in grassy places, near woods
 P. lacertulabeaten from birch
 " sicala, b.
 " hamulaflies in the day time, generally in the morning ; beaten from oak
 " unguicula, b. flies in the day time
 C. spinulaon palings, &c.

IMAGOS]

JUNE

- D. furcula* } rest on willows,
" bifida } poplars, &c.
" vinula }
S. fagi at rest, on tree trunks,
 and palings; generally in old
 beech woods
P. bucephala ... at rest; at light
G. crenata formerly at Epping,
 and Halton, Bucks.
P. palpina at light
N. camelina at light; hides on
 fronds of fern, and in, and on
 trees
" cucullina, e. s.
" bicolora has been taken at
 Burnt Wood, Staffordshire
" dictæa at rest, at base of
 willows, and large poplars
" dictæoides ...
" dromedarius at light
" ziczac hides in bark crevices
 of poplar
" trepida at light, and on oak
 trunks
Dodonea
T. derasa
" batis, e. flies over brambles,
 at dusk
C. duplaris
" fluctuosa ... } do not always travel
" or } quietly, when boxed.
" ocularis, e. } C. or is s. found at
 rest, on aspens
D. Orion, e. at rest, on oak trunks
A. tridens } rest, on trees,
" psi } palings, &c.
" leporina rests on tree trunks,
 s. high up
" aceris on trunks of sycamore,
 and palings near
" megacephala on tree trunks, and
 palings, among poplars
" strigosa Cambs
" alni at sugar
" ligustri on ash trees
" rumicis
" menyanthidis heaths, &c.
" myricæ at Rannoch
S. venosa in fens
L. conigera
- L. turca* in grassy woods
" lithargyria, e.
" obsoleta in marshes
" littoralis on coast sand-hills;
 settles on tufts of *Ammophila*
arenaria
" pudorina marshes, and fens
" comma
" straminea marshes, and fens
" impura
" pallens
" phragmitidis marshes, and fens
T. Bondii rests on stems of
 grass, at night
M. flammea marshes, and fens
S. ulvæ marshes, &c.
N. despecta the *Nonagræ* fly at
 dusk, for about 20 minutes, after
 which they settle on fl., and on
 the foliage of their food-plant
" concolor, e. fens
" Hellmanni ... fens
G. flavago
A. putris at r. of trees
X. rurea
" lithoxylea
" sublustris
" polyodon
" hepatica
D. pinastri
N. saponaria ... comes to l.
P. leucophæa ...
M. anceps marshes, and fens
" albicolon, b. on the coast
" furva, e.
" brassicæ hides on walls, pa-
 lings, &c.
" persicariæ on palings, &c.
A. basilinea
" connexa
" gemina
" unanimis marshes, and fens
" ophiogramma marshes, &c. ; s. at
 light
" oculea
M. strigilis
" fasciuncula ... wet woods, &c. ;
 at fl.
" literosa on the coast
" furuncula ...

IMAGOS]

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- M. arcuosa, e. ...flies at dusk, then settles on fl., and the foliage of its food-plant
 P. captiuncula ...at Darlington
 G. trilinea.....
 H. palustris, b. has been taken at l.
 A. caliginosa ...in moist woods
 C. Morpheus ...
 " blandaat fl.
 " cubicularis ...beaten from thatch ; flies in hay fields
 R. tenebrosa...
 A. valligera, e. mostly on the coast ; at fl.
 " Puta.....
 " suffusa.....
 " segetum
 " exclamationis often in kitchen gardens
 " corticea, e. ...comes to l.
 " ripæ under pieces of wood, &c., near the coast
 porphyreaamong heath ; frequents the fl. at night
 " ravida, m. ...
 " pyrophila.....at fl.
 T. fimbria.....
 " Orbona.....
 " pronuba ... } come to l.
 N. augur
 " plecta
 " c-nigrumcomes to l.
 " triangulum ...
 " brunnea
 " festiva
 " conflua
 " Dahlii
 " rubi
 " baia
 O. Upsilon, e. ...flies over willows
 D. oo.....
 D. irregularis ...at rest, on viper's bugloss, and in crevices of bark of trees
 " carpophaga ...among *Silene inflata* ; flies at dusk, at *Silene fl.* The whole genus are attracted by fl.
 " capsophila ...
 " capsincola ...among *Lychnis*
 D. cucubaliamong *Lychnis flos-cuculi* ; flies in the sunshine
 " albimacula ...
 " conspersa
 " cæsia
 " Barrettii,on the Hill of Howth, Ireland, and Isle of Man
 H. dysodeaat fl. of red valerian
 " serenaon trees, palings, &c., near kitchen gardens
 P. meticulosa ...
 E. lucipara
 A. herbidawoods, &c. ; very local
 " occulta at rest ; early in the morning ; unquiet when boxed
 " nebulosa
 " tinctaon trees, and palings ; unquiet when boxed
 " advena at fl. ; rests on stumps, and trees
 H. adusta
 " glauca
 " dentina.....
 " chenopodii ...at l.
 " atriplicis
 " suasaat sugar, on com-mons, &c.
 " oleracea
 " pisi
 " thalassini
 " contigua
 " genistæ.....
 " rectilineaat rest on stones, &c., on dull days
 C. lychnitis
 " asteris
 " gnaphalii
 " absynthii
 " chamomillæ...rests on railings, &c. ; s. hides under the top edge of a paling
 " umbratica ...at rest, on palings, and at fl.
 H. marginata ...
 " peltigeramay be started from herbage
 " dipsaceaflies over fl., in the sunshine
 A. melanopa ...at Rannoch ; flies in the sunshine

IMAGOS]

JUNE

- A. cordigera.....at Rannoch; flies in the sunshine
 " myrtili.....on heaths, &c.; flies in the sunshine
 H. arbuti, b. ...fields, &c.; flies in the sunshine
 A. sulphuralis ...wet places, among *Convolvulus arvensis*; s. on fl. of knapweed in the day time; flies quickly a little way, when disturbed
 A. luctuosaflies in the sunshine, over fl., in clover fields, &c.; on the chalk and limestone
 E. venustula.....
 " fuscuas. in fir woods
 B. argentula.....in the bogs of Killarney, and the S.W. of Ireland
 H. uncamarshes, and fens
 M. ostrina..... } in sheltered spots, on
 " parva } sand-hills
 A. urticae
 " triplasia
 P. chrysisamong nettle
 " festucae, s.in fens, sea marshes, &c., and at fl. of *Lythrum salicaria*
 " iotaamong *Glechoma hederacea*
 " v-aureum.....over *Lychnis* fl., &c.
 " gamma.....flies in the sunshine
 " ni
 " interrogationis flies wildly; rests on rocks, and stumps, in dull weather
 M. typica.....rests on walls, &c.
 T. pastinum.....beaten, from bushes
 O. lunaris
 E. mi..... } fly in the sunshine,
 " glyphica ... } and hover over fl.
 P. aenea..... }
 M. salicalisamong long grass, and rushes, in wood-paths, and young underwood; comes to l.
 H. proboscidalis among nettle
 " crassalis on heaths, among bilberry; may be beaten out of over-hanging banks in woods; is very active in the net
 H. albistrigalis... comes to rush fl., and s. sugar
 R. sericealisin damp woods, and marshes
 S. emortualis ...among oak
 H. derivalis
 " barbalisbeaten, from undergrowth
 " tarsipennalis woods, &c.
 " grisealis
 A. flexulabeaten, from hedges, &c.
 P. fimbrialisat light
 " farinalisat rest, in stables, corn stores, &c.
 " glaucinalis ...in thatch, and at light
 A. pinguinalis ...on walls in stables, houses, granaries, &c.
 " cuprealis, e. occurs in houses
 C. augustalis ...
 P. purpuralis ...flies by day, among grass, &c.
 " ostrinalisflies by day
 R. sanguinalis ...flies at dusk
 E. octomaculalis woods, &c.
 A. nemoralis ...
 E. flammealis ...on sloping hills, and cliffs, near the sea, among fern; very local
 N. ciliarisin fens
 S. punctalisamong *Iris foetidissima*
 C. lemnalisflies over duckweed-covered ponds, at dusk; comes to light
 P. stratiotalis ...beaten, from water-plants; flies at dusk; comes to light
 H. nymphæalis } may be beaten from
 " stagnalis ... } water-plants; flies at dusk
 A. niveusat rest, on twigs, &c., in weedy ponds, and rivers, close to the water's edge, or flying slowly over the surface
 B. pandalisamong grass, &c., in woods, particularly beech
 " verticalisamong nettle
 " lancealisin damp woods, or lanes near
 " fuscalismarshes, &c.

IMAGOS]

JUNE

- B. terrealisamong golden rod
 " urticalisamong nettle
 E. crocealisamong fleabane
 " verbascalis ... among *Teucrium scorodonia*
 " sambucalis ...among elder
 P. forficalis, e.....in gardens
 " margaritalis, e. fens, &c.
 S. sticticalisat l., and fl.
 " palealisamong wild carrot, and *Peucedanum*, on the S.E. coast
 " cinctalis in clover fields ; comes to l.
 S. alpinalison the tops of mountains, in Perthshire, &c.
 " olivalisin hedges
 " prunalisin hedges, &c.
 L. pulveralis.....among hairy mint
 S. hybridalis ... among grass, and clover
 S. ambigualis ...s. at sugar, and at rest. Many of the genus may be found at rest, on walls, palings, &c.
 " Zelleribeaten, out of old willows, and hawthorns
 " dubitalis
 " muranaamong heath
 " ingratella
 " mercurella ...
 " atomalisamong heath
 P. cerusellus.....in grassy places, among shingle
 C. pratelluss. at sugar
 " dumetellus ...
 " sylvellusin fens, &c. ; local
 " pascuellus ...damp meadows, and moors ; local
 " uliginosellus, e. in fens, &c. ; local
 " furcatellus ...a mountain species, in Britain, not below 2000 ft.
 " margaritellus damp, grassy places, in open woods
 " culmellus.....
 " chrysonuchellus among dry grass, &c. ; local
 " rorellus
 " cassentiniellus Brighton, &c. ; considered a var. of *Rorellus*
- C. hortuellus ...among grass, and moss
 C. phragmitellus marshes, and fens
 S. forficellus.....weedy ditches, &c.
 " mucronellus, e. fens, &c.
 A. lotellaon coast sand-hills ; flies at dusk
 M. cirrigerella ...some specimens were taken, for the first time, in this country in 1874, near Marlborough, Wilts. They were found to be very fond of going into lighted candles. Probably about the 20th of the month would be the best time to look for the species, as some which were taken (on the 30th) were worn
 H. nimbellaamong *Jasione montana*, and thistles, and ragwort ; on the coast
 " nebulellaamong *Carduus nutans*, &c. ; very local
 E. elutella..... in grocers' warehouses, &c. ; also thatch, and ivy
 " cinerosella ...
 " semirufa
 C. bistriga
 P. interpunctella in corn, seed, and grocers' warehouses, &c.
 N. angustella ...among spindle
 G. canella.....among *Salsola*
 P. betulellaamong birch
 " carbonariella among burnt heath, and birch
 " adelphella ...
 " dilutellain chalky places
 " subornatella
 " abietellamay be beaten from young fir trees
 P. palumbella ...among heath
 R. formosella ...
 " marmorea ...among sloe
 " tumidella, e. among oak
 O. ahenella
 H. prasinana ...woods
 " quercanawoods
 T. podana.....hedges
 " sorbianawoods
 " rosanagardens, woods, &c.

IMAGOS]

JUNE

- T. cinnamomeana Kent, Surrey, Hants
 " heparanahedges
 " ribeana.....
 " corylana, e.... among nut, dog-
 wood, &c.
 " unifasciana ...hedges
 " semialbana ...on the chalk
 " costana.....fens, and marshes
 " viburnana ...boggy heaths, and
 moors
 " viridanaamong oak, &c.
 " ministrana ...woods
 " Branderiana Essex, Cambs, Hants
 D. Grotiana.....among oak, in woods
 A. Gerningana...heaths, and moors,
 in the N.
 P. permutana ...among Rosa spinos-
 sissima
 " comariana ...boggy heaths, and
 fens
 D. Lorquiniana fens
 " Læffingiana... among oaks, in
 woods, and hedges
 " Holmiana ...hedges
 " Bergmanniana..... rose bushes,
 hedges, &c.
 " Foscakiana ...maple, hedges, &c.
 A. Conwayana...
 P. Lecheana.....woods
 D. semifasciana among willows
 P. picanaon birch trunks
 " capræana.....Kent
 " prælongana ...among birch
 " pruniana
 " ochroleucana among rose
 " cynosbana ...
 " dimidiana ...
 " saucianaSheffield, Leith Hill,
 Hazlemere
 " Grevillana ...Scotch mountains
 " Staintoniana Perthshire, among
 Arctostaphylos uva ursi
 " gentianana ...Gravesend
 " marginana ...damp woods, heaths,
 and fens
 " carbonana (fuligana) woods, and
 fens
 A. salicana ...among willow, and
 poplar
 S. laricanain larch woods
 S. ocellanaamong alder
 " dealbana
 " neglectana ...among willows, and
 poplars
 " simplanaamong aspen
 " incarnatana...on the coast
 " suffusanahedges
 " rosæcolana ...in gardens, among
 roses
 " roborana
 P. tripunctana ...
 A. Udmanniana among bramble
 S. achatana
 S. latifasciana ...woods
 " euphorbiana...among spurge
 " littoranabanks, on the coast
 " abscisana.....at Folkestone, among
 Inula, and thistles
 " cespitanacoast, and other
 sandy districts
 " conchana ...meadows, & marshes
 " Daleanaamong Vaccinium,
 at Rannoch, &c.
 " micanamarshes
 M. Schulziana...heaths, and mosses
 " palustrana ...Rannoch, among
 heath
 " Ratzeburgiana among spruce fir
 " rubiginosana Scotch mountains
 " consequana ...South coast, among
 Euphorbia paralias
 R. arcuanaamong young oaks
 E. rufana
 " arbutana
 O. antiquana ...corn fields
 " strianadry banks, and
 rough pastures
 " ericetanain clover fields, and
 rough pastures
 E. fractifasciana downs
 P. rugosanahedges, &c., among
 Bryonia dioica
 C. musculana ...hedges
 S. nubilanahawthorn hedges
 " Peteranadry banks
 " subjectana ...
 " virgaureana ...
 " abrasana... ..
 " hybridana ...among elm, and sloe
 " octomaculana rough pastures

IMAGOS]

JUNE

- S. Colquhounana wild hills, on
Scotch and Irish coast
- S. ictericana.....hay fields, and sand-
hills
- C. favillaceana... in woods, among
juniper
- O. rusticanamoors, fens, mosses
- B. uliginosana ...in fens
- " lanceolana ...among rushes
- " furfurana Lancashire coast,
Scotland, &c.
- P. siculanaYorks
- " unguicana ...heaths
- " uncana.....on heaths, and in
Southern woods
- " biarcuana ...among willows
- " inornatana ...(subarcuana) in fens;
local
- " paludanafens
- " comptana.....chalk downs, &c.
- " myrtillana ...moors, among Vac-
cinium
- " derasanaSouthern woods
- " diminutana ...
- " Mitterpacheriana oak woods
- " upupanaSouthern woods
- " lætanaSouthern woods,
among aspen
- G. nigromaculana among ragwort
- " campoliliana among willow
- " Penkleriana...among nut, & alder
- " obtusana
- " geminana.....moors, among Vac-
cinium
- P. tetraquetana woods
- " Demarniana Southern woods
- H. crucianaamong willow
- P. bilunana
- " oppressana ...on poplar trunks;
London district, and Norfolk
- " corticana
- " profundana ...
- " sordidana, &c.
- E. bimaculana ...
- " cirsiana
- " Pfulgiana.....
- " Brunnichiana
- " turbidana.....
- " fœnanaon the coast, and in
fens, among *Artemisia vulgaris*
- E. nigrocostana in lanes, among
Stachys
- " signatana.....
- " grandævana, e. S. Shields, among
coltsfoot, on ballast heaps; flies
at dusk, and rests on the leaves
- " gallicolana ...Darenth
- " trigeminana...fields, & dry banks,
among ragwort
- " obscurana ...Darenth
- O. ulmana
- S. spinianahawthorn hedges
- " rufillana ...among wild carrot
- " Wœberana ...gardens, among
plum trees
- C. cosmophorana on fir shoots
- " strobilana ...woods, among spruce
- " splendidulana on oak trunks
- " argyranaoak trunks
- " nemorivagana...moors, Rannoch,
Scotch mountains
- " Hercyniana ...among spruce
- " distinctana ...Westmoreland,
Cumberland, Norfolk
- " ustomaculana
- " ravulana
- " vacciniana ...
- " nanana
- R. Buolianaamong Scotch fir
- " turionana, b.
- " pinivorana ...
- " resinanaPerthshire
- " duplanaPerthshire
- " sylvestrana ...Bournemouth, Kent
- C. grossanaamong beech
- " pomonana ...among apple trees,
and bred from bought apples,
and pears
- O. funebrana ...bred from bought
plums
- E. nigricanaamong peas
- " pisana among peas, and
vetches
- S. dorsanarailway banks
- " leguminana ...among fir, & alder?
- " coniferana ...among Scotch fir
- " perlepidana, b. among grass, and
low bushes
- " composana ...among clover, and
trefoils

IMAGOS]

JUNE

- S. Weiranaamong beech
 " nitidana
 " Trauniana ...among maple
 " Germarana ...woods, in the South
 D. politana
 " sequanadry fields, and rail-
 way banks
 " Petiveranaamong yarrow
 " plumbana ...
 " plumbagana
 " acuminatana railway banks
 " herbosana ...N. of England, and
 Scotland
 " simpliciana ... among Artemisia
 vulgaris
 P. Rheediana ...in hawthorn
 hedges
 C. albersana.....woods
 " ulicetanaamong furze
 " nimbanaamong beech
 " Juliana.....among oak
 " microgrammana among rest harrow
 " hypericana ...among Hypericum
 " canaamong thistles
 " fulvana..... chalky districts,
 among Centaurea scabiosa
 " Hohenwarthiana among thistles
 " scopoliana ... among Centaurea
 nigra
 " expallidana ...dry banks
 conterminana
 T. mediananear London, Folke-
 stone, Fulborne
 S. vibrana.....
 L. Servillana ...woods, in the S.
 E. nana.....among birch
 " maculosana ...woods, in the S.
 " sodalianaamong Rhamnus
 catharticus
 " hybridellana Witherslack
 " manniana.....
 " curvistrigana woods, in the S.,
 among ragwort?
 " udanamarshes, &c.
 " notulanafens, and marshes
 " rupicolana ...marshes
 " subroseana .. woods, in the S.
 " implicitana ...woods, in the S.
 " ciliana
 " pallidanacliffs
 X. Zoegana
 " hamanaamong thistles
 C. bifasciana ...woods, in the S.
 A. Beaumanniana ...in wet, rushy
 places
 " zephyrana ...S. coast
 " Schreibersiana in fens
 " badianarailway banks, &c.;
 among burdock
 " cnicanaamong thistles
 " maniana
 " seniana
 " Mussehlana Devonshire
 " maritimana, b. on the coast
 C. Francillonana on the coast
 " dilucidana ...
 " Smeathmanniana
 " stramineana...chalky places
 " alternanaFolkestone
 T. pubicornella Howth, and Grass-
 ington, Yorks
 " pseudo-bombycella oak woods
 P. villosellaNew Forest
 " opacellaNew Forest, Wither-
 slack, Rannoch
 " calvella
 " salicolella.....
 " betulina [heaths
 " pullella among grass, on
 " intermediella Black Park, Virginia
 Water
 " roboricolella
 " crassiorella ...Hampstead, High-
 gate
 " reticellaSheerness, and near
 Gravesend. The ♀ when alive
 is banded with yellow like a
 larva of E. jacobææ, but turns
 nearly black soon after death
 P. Verhuellella
 D. marginepunctella
 X. melanella ...
 S. carpinetella...among fir
 " arcuatella.....Cheshire, Rannoch
 " granellaabout granaries, and
 flour mills
 " cloacella
 " cochyliidella...
 T. fulvimitrella Walsingham, Lan-
 cashire, Rannoch

IMAGOS]

JUNE

- T. tapetzella ...common in houses, &c., where its larva feeds on hair stuffing, carpets, fur, &c.
- " albipunctella
- " misellain outhouses
- " pelliella ...common in houses, its larva feeding on cloth, fur, &c.
- " fuscipunctella
- " ganomella ...woods, and hedges
- " merdellaDarlington, Liverpool, Manchester
- " biseliellain houses, and museums, its larva feeding on hair, fur, and feathers
- " semifulvella...
- " perochraceella Rannoch
- L. quadripunctella among roses
- " luzella berry]
- " praelatella ...among wild straw-
- " rubiellain gardens
- I. tenuicornella Witherslack, Manchester, West Wickham
- " Oehlmanniella
- " canariellaIsle of Man
- M. calthella
- " aruncelladry banks
- " seppellaon fl. of Veronica chamædrys, on dry banks
- " mansuetella...
- " Allionella ...among Vaccinium
- " Thunbergella ...
- " subpurpurella among oak
- N. Swammerdamella on trees, among heath
- " Schwarziella, b. in hedges, &c.
- " pilella Yorks, Scotland, Lake District
- " Metaxellaamong alder, in fens, &c.
- A. fibulellain Veronica fl.
- " rufinitrella.....in wet meadows, and bogs
- " sulzella.....
- " Degeerellain, and near woods
- " viridellain hedges, and among oak
- N. scabiosellus...among Scabiosa arvensis, and S. columbaria; very local
- N. cupriacella ...
- " Schiffermillerella Southend, Darent
- " minimella ...Witherslack, Scotland, Mickleham
- S. comptella.....among sloe
- " cæsiellaamong sloe
- " griseocapitella among birch
- S. lutarella.....
- A. funerellaRichmond, Yorks; Cambs, Lake District
- " decemguttella Darent
- P. Curtisella.....among ash
- E. Messingiella in swamps, and damp bottoms
- P. porrectella ...in gardens
- " annulatella ...Howth, Morecomb, Castle Eden, Scotland, Portland
- E. lobella... ..among sloe
- D. assimilella...among broom
- " conterminella
- " cnicella
- G. cinerella
- " rufescentella
- " inornatella ...in fens
- " malvellain gardens, about hollyhocks
- " populella
- " nigra.....
- " lentiginosella
- " fumatella New Brighton, Birkenhead, Dawlish
- " ericetellamoors, and heaths
- " mulinellaamong furze
- " divisella
- " sororculella ...among willow
- " peliella..... Manchester, West Wickham
- " longicornis ...in bare, burnt places
- " diffinella sand-hills on the coast
- " terrella.....
- " desertella.....
- " expolitella ... Darlington, Skidaw, Pentlands, &c.
- " acuminatella
- " artemisiella ... coast sand-hills, Manchester, &c.
- " viscariella ...
- " arundinetella Hackney, Cambs

IMAGOS]

JUNE

- G. mundellacoast sands
 " umbrosella ...coast sands
 " affinella
 " boreellaScotland
 " basaltinella ...Cambs, Addington
 " domesticella
 " proximella ...among birch, and
 " alder ; on moors
 " notatella
 " vulgellahedges, &c.
 " luculellaamong oak
 " scriptella
 " fugitivella ...on trunks of elm,
 " and beech
 " æthiopella ...on moss
 " distinctella ...on the coast, and in
 " sandy places
 " tricolorella ... among Stellaria
 " holostea
 " muscosella ...
 " fraternella ... among Cerastium
 " arvense
 " leucomelanella
 " marmorella ...coast sand-hills
 " obsoletella ...Darlington, Redcar,
 " S. Shields, Portland
 " ocellatella ...
 " atriplicella ...among Atriplex, and
 " Chenopodium
 " sequacella ...
 " aleellaWest Wickham
 " leucatella
 " Mouffetella ...among honeysuckle
 " dodecella
 " triparella
 " tenebrella ...
 " ligulellaamong Lotus major,
 " on railway banks, &c.
 " vorticellarailway banks, &c.
 " sircomella ...railway banks, &c.
 " nigritella
 " coronillella ...Mickleham
 " anthyllidella railway banks, and
 " coast sand-hills
 " bifractella ...Folkestone, Mickle-
 " ham
 " oblitellain fens
 " confinison old walls
 " cerealellain granaries
 " nigricostella ..in fens
- G. næviferella ... among Chenopo-
 " dium
 " subdecurtella... among Lythrum
 " salicaria, in fens
 " inopella
 " subocellella ...
 " Strelitzella ...
 " intaminatella railway banks
 " Tarquinella...
 " sangiellarailway banks
 " lathyrella ... among Lathyrus
 " palustris ; in fens, &c.
 P. lappella
 " Metzneriella
 " carlinella
 S. parenthesesella
 " humerella ...
 P. bicostella.....moors, &c.
 H. Geoffroyella
 " bracteella.....near Gateshead
 H. Christiarella, e. Castle Eden,
 " Darenth, Greenhithe, Seven-
 " oaks
 D. sulphurella ...
 " oliviellaDarenth, Tenterden,
 " Lewes, &c.
 CE. minutella ...in hay lofts
 " flavimaculella among Angelica
 " sylvestris
 " trisignella ...
 " stipella..... Preston, Staley-
 " bridge, Lake District, Yorks,
 " Rannoch, &c.
 " augustella ...Hyde Park, Bristol
 " Woodiella ...formerly on Kersall
 " Moor, near Manchester
 " grandella
 " lambdella.....Charlton, Bristol
 " subaquilella ...Scarboro', S. Shields,
 " Lake District, &c.
 " tinctellaGravesend, Darenth,
 " W. Wickham, &c.
 " subochreella Cambs, Lewes, &c.
 " flavifrontella Witherslack, Cambs,
 " &c.
 B. grandipennella among furze
 " fusco-æneella
 " variella.....in sand-pits
 " chenepodiella Yorks, &c.
 " torquatella ...Scotland

IMAGOS]

JUNE

- P. Lewenoeckella
 " latreillella ...
 A. perlepidella...Darenth, Bristol, &c.
 R. Erxlebenella among lime under-wood
 G. fuscoviridella
 " Thrasonella...among rushes
 " cladiella among rushes, in fens, &c.
 " equitellaamong Sedum acre
 " oculatella.....Tenterden, &c.
 E. dentella
 T. stanneella ...among oak
 " resplendella...
 A. ephippella ...local
 " nitidellaamong hawthorn
 " albistriella ...
 " conjugella ...among wild mountain ash
 " ærariella possibly a var. of A. conjugella
 " mendicella ...among sloe
 " glaucinella ...among oak
 " retinellaamong birch
 " abdominella, e.
 " dilectellaamong juniper
 " curvellaamong wild apple
 " sorbiella
 " pygmaella ...among willow
 " Goedartella ... among alder, and birch
 " literella.....var. of Goedartella, at Darenth
 " Brochella..... among birch, and alder
 " arceuthinella among fir, & juniper
 C. farinatella ...among Scotch fir
 G. alchimiella ...
 " elongellaamong alder, & yew
 " syringella..... in gardens, among lilac
 " ononiellaKent
 " auroguttella... among Hypericum quadrangulum
 " Hoffmanniella
 O. avellanella ...among nut
 " betulævorella among birch
 " scutulatella ...
 " torquilella ...among sloe
 " Scoticella.....
 O. Loganella ...
 " guttellaamong apple
 C. Fabriciella ...on railway banks
 " paripennella
 " Wockeella, e.
 " lixella, e.
 " conspicuella...
 " pyrrhulipennella
 " albicostella ...among furze
 " vulnerariella
 " anapipennella
 " palliatella.....
 " ibipennella, e.
 " currucipennella among willow
 " niveicostella, e.
 " discordella ...among Lotus major
 " genistæcolella, e. among Genista anglica
 " therinella.....among thistles; very local
 " troglodytella
 " lineolellaon Ballota nigra
 " murinipennella
 " cæspitiella...among rushes
 " salinella Yorks, and near Brighton
 " laricella, e. ...among larch
 " albitarsella ...among ground ivy
 " fuscocuprella among nut
 " nigricella.....among hawthorn
 " orbitella
 " gryphipennella among rose
 " siccifoliella ...
 " vitisella Staleybridge, and moors near Manchester
 " viminetella ...among willow
 " olivaceella ...Chesterfield
 " solitariella ... among Stellaria holostea
 " lutipennella...among oak
 " badiipennella among hawthorn
 " limosipennella
 " chalcogrammella among Cerastium arvense
 " Wilkinsonella
 C. Lienigiella ...in fens, among reed
 B. pinicolella ...among Scotch fir
 L. paludicolella among willow herb
 " lacteella Yorks, Lake District, Bristol

IMAGOS]

JUNE

- L. miscella, b. ...
 " conturbatella among willow herb
 " Raschkiella ...
 " ochraceella, e.
 " subbistrigella
 " atrellaamong hawthorn
 C. bimaculella, e. Black Park, and
 Leith Hill
 " Schrankella...
 " flavicapitella among hawthorn
 A. æratella
 " terminella ...
 C. festaliella
 A. Treitschkiella about dogwood
 S. Brunnichella in chalk pits, among
 Clinopodium vulgare
 E. Gleichenella most of the genus
 are found among grass, sedges,
 and rushes
 " apicipunctella
 " albifrontella...
 " Holdenella ...
 " atricomella ...
 " luticomella ...
 " kilmunella ...
 " cinereopunctella
 " trapeziella ...
 " stabilella
 " Gregsonella...
 " nigrella
 " perplexella ...
 " humiliella ...
 " subobscuraella
 " zonariella.....
 " gangabella ...
 " tæniatella.....
 " cingilella
 " obliqueella... ..
 " Megerella ...
 " adscitella
 " cerussella among reeds, in
 marshes, &c.
 " rhyncosporrella
 " eleochariella
 " biatomella ...
 " serricornella
 " triatomella .. in chalk pits
 " dispunctella...
 " collitella
 " pollinariella...
 E. subochreella
 " cygnipennella
 T. complanella...among oak
 " emyellaamong blackberry
 " angusticolella
 " dodonæa
 L. roborellaamong oak
 " amyotella.....
 " quinqueguttella among dwarf
 sallows
 " irradiella
 " insignitella ...Castle Eden, Scar-
 boro', Windermere
 " lautella.....among oak
 " vacciniella ...
 " cavella
 " pomifoliella... among hawthorn,
 and apple
 " corylellaamong nut
 " spinicolella ...among sloe
 " faginellaamong beech
 " carpinicolella among hornbeam;
 local
 " ulmifoliella ...among birch, &c.
 " spinolella.....among sallows
 " quercifoliella among oak
 " viminiella ...among willow
 " scopariella ...among broom
 " ulicolella, e. among furze
 " Heegeriella...among oak
 " tenella Epping, Winder-
 mere, Wanstead
 " sylvella.....among maple
 " emberizæpennella
 " Frolicheiella ...among alder
 " Dunningiella Yorks, Lake
 District, &c.
 " Nicelliella ...among nut
 " Stettinella ...among alder
 " Klemannella
 " tristrigella ...among elm
 L. Clerckella ...
 P. salignella, e.
 C. spartifoliella among broom
 " laburnella ...among laburnum
 " scitella
 " Wailesella ...among Genista
 " lotellaamong Lotus major
 O. salaciellaamong sorrel
 " auritellain fens

IMAGOS]

JUNE

- O. crepusculella
 B. aurimaculella among chrysanthemum leucanthemum
 " cidariellaamong alder
 " ulmella.....among oak
 " cratægifoliella about hawthorn hedges
 " demaryella ...Scarboro'
 " Boyerella..... among elm
 " frangulella ...among buckthorn
 " hippocastanella
 " cristatella.....among yarrow
 " artemisiella ...at Folkestone
 N. atricapitella among oak
 " anomalella ...
 " perpygmæella
 " pomella
 " oxyacanthella
 " viscerella
 " catharticella
 " septembrella among Hypericum
 " cryptella
 " Weaverella ...
 " intimella
 " Headleyella Mickleham, Scarboro'
 " subbimaculella among oak
 " apicella on moors
 " argyrophezella
 " quinqueella ...
- N. sericopezella
 " argentipedella
 " angulifasciella
 " arcuosella ...
 " alnetellaamong alder
 " continuella ...
 " regiella.....
 " sorbiella
 " tiliæella
 T. pulverosella.. among wild apple
 P. Bertrami, e. among yarrow
 " ochrodactylus among tansy
 " trigonodactylus comes to l.
 " Zetterstedtii...
 " acanthodactylus
 " baliodactylus
 " aridius
 " parvidactylus
 " serotinus
 " plagiodactylus among Scabiosa columbaria
 " Hodgkinsonii, b.
 " microdactylus among Eupatorium cannabinum
 " paladumin fens
 " tetradactylus
 " pentadactylus
 A. polydactyla, from Aug.

JULY

OVA]

Now that the heat of summer is really making itself felt, a slumbrous calm seems to hang over the landscape, "half drowned in sleepy peace,"

"As satiate with the boundless play
Of sunshine on its green array."

And the Collector, yielding to the soothing influences around him, may perhaps be seen

"beneath an ancient shade,
Or on the matted grass supinely laid."

But he should remember that he must work, often very hard, to obtain what he may be specially in search of, and that very few, if any, prizes will come to his hand unless they are thoughtfully sought for.

This may be a convenient time to note that the pursuit of Entomology is liable to be attended with some inconvenience, and, it may be, risk, which, however, may be minimized by a little pre-consideration. Marshes, and other disagreeable places, although "farthest from them is best," have occasionally to be visited, and the Collector would do well to be as expeditious as possible over his work in these localities, and he should be careful to keep as much as possible to the "windward" of the rotten carcasses, and worst spots he may think it desirable to explore, for the treasures to be found at them. When heated, he should be especially careful how he allows himself to "cool down," and not be tempted to sit, or lie down in damp or miasmatic places, because the shade may be grateful, as cold, fever, rheumatism, or worse, may result. In very hot weather drink of any kind should not be too freely indulged in, as its tendency is to unduly promote perspiration. If the journey on foot is a long one, or the time out in the blazing sun is prolonged, an occasional small "drink" of some acidulated preparation, in which is a "touch" of brandy or whiskey, with the partaking of solid food at short intervals, will prevent that exhaustion which sometimes culminates in sunstroke. Completeness of pre-arrangement in these cases, generally means efficiency of work, besides the absence of bad after-results. Midges, flies, &c., are often a source of annoyance on a hot day, particularly if the Collector is corpulent, and perspires freely. Stings may, however, be generally avoided by anointing the face, head, and hands with fluid camphor, or some other strong-smelling insect bane. Washing the head, &c., just before starting in a strong solution of borax, or of alum, both said to be particularly distasteful to insects, might be tried with advantage. Alcoholic emanations are great attractions to most insects, and therefore teetotallers are least liable to annoyance from this source. The Author remembers once collecting with a young wine and spirit merchant, who had hastily left his cellar for "a day out," and the attention which was paid him by hundreds of flying "cusses" was, to use another Americanism, "a caution." Adders may be often met with, but they never bite unless attacked, or accidentally trodden upon, and they are generally too

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much on the alert to be thus caught napping. They are much more alarmed at the presence of man than he ought to be of them, though a suddenly disturbed female will sometimes face him, and hold herself ready for attack, when she is burdened with a troop of young ones, clinging round her. High boots, or leggings, are a good protection against any such risk. Good lace-up boots are much to be preferred, for tramping about, to the effeminate, though it may be convenient, "elastics." It might be desirable to be provided with a small bottle of liquid ammonia, in case either of a bite, or a severe insect sting. Prompt application is essential to success. There is yet another risk sometimes incurred by the ardent Entomologist: a bull, or a cow may give chase, and, with dreadful declension of horns, threaten a most unwelcome "heave offering" over the hedge. Such an attack should be promptly met by the sudden opening of an umbrella in the face of your enemy, or the flinging about of your net, with a "jobbing" of the ferrule at his or her nose—a most sensitive part, and conqueringly seized upon by dogs at bull-fights. If these movements be accompanied by an unearthly noise, on your part, the chances of your tormentor's rapid retreat are increased.

- C. Edusa, s..... on white clover, lucerne, &c.
 A. Paphia, e. ...on dog, and sweet violet, and dead leaves, and moss near; in woods; whitish
 M. Athaliaon Plantago lanceolata, and P. major; also foxglove, germander, and Teucrium scorodonia
 V. urticae on nettle; in batches, on underside of leaf; barrel-shaped, fluted, green
 L. sibyllaon honeysuckle
 A. Irison sallow; on upper-side of leaves
 A. Galateaamong timothy, and other grass; laid loosely; globular, cream-coloured
 S. Semeleon quaking grass, &c.
 " Ianiraon meadow grasses; slightly oblong, imbricated
 " Tithonuson blades of grass; truncato-conical; at first canary yellow, changing to brown
 " hyperanthus...on annual meadow, millet, couch, and other grasses; singly
 T. quercusto April, on oak twigs, high up
 " w-album to April, on wyth elm, also elm; on the twigs; whitish
 T. prunito March, on sloe twigs
 L. Ægon, e.....to March, on Ornithopus perpusillus; white
 H. sylvanuson grasses; a little within the sheath; white, laid in a line
 " linea..... to March, on grasses
 S. bembeciformis on poplar, sallow; upon the bark; oblong, dark brown
 M. arundinis ...on stems of common reed; singly
 Z. æsculion elm, pear, and other trees; in masses, in the chinks of the bark
 C. ligniperda ...in the chinks of the bark, of various trees, especially ash, willow, and elm
 H. sylvinus, e....among sorrel, and dock; laid while the moth is on the wing; at first white, but soon turn black
 C. miniata, e. ...on lichens, on oaks; laid in rows; yellow
 E. cribrumon heath; globular, shining metallic bronze
 C. villicaon chickweed, furze, &c.; laid in regular batches, upon the leaves; pearly, pale straw-colour

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- L. chrysorrhæa** on sloe, and hawthorn. The eggs of the *Liparis* are laid in batches, round the twigs, and are covered with down from the parent moth
- " **auriflua** on sloe, hawthorn, oak, &c.
- " **salicis** on willow, poplar, &c. The satiny-like batches are very peculiar
- " **dispar** to March, on sloe, hawthorn, and various fruit-trees
- O. gonostigma** on oak, nut, willow, bramble
- " **antiqua** on the old cocoon, which has been spun on various trees, and shrubs, palings, &c.; hollowed somewhat in the form of a cup
- B. neustria** to March, on hawthorn, sloe, fruit-trees; in batches round twigs, and branches
- " **castrensis** to March, on *Artemisia maritima*, and *Daucus maritimus*
- O. potatoria** on blades of coarse grass; white, with two rings of green
- E. vespertaria** ... to April, on nut
- B. repandata** ... on birch, plum, bramble, &c. The eggs of the tree-feeding species of this genus are deposited in the chinks of the bark
- " **rhomboidaria** ... on ivy, birch, oak, plum, lilac, rose, elder, &c.
- " **perfumaria** ... on ivy, lilac, clematis, &c.
- " **abietaria** on larch, and spruce
- " **cinctaria** on heath. In confinement eggs have been laid, by preference, on willow catkins
- " **roboraria** on oak; in clusters; oblong, oval; at first dull greenish, then reddish brown
- " **consortaria** ... on oak; bright green
- G. obscurata** on thyme, sun cistus, *Potentilla reptans*, *Poterium sanguisorba*
- D. obfuscata** on heath, vetch, &c.
- P. baiularia** on oak; large, oval, brownish
- H. thymiaria** .. on hawthorn, oak; rather large, oblong-oval, and flattened; a peculiar shining greenish-bronze colour
- A. Blomeraria** ... on wych elm; in small batches; somewhat brick shaped; at first pale, afterwards deep yellow, at last again pale
- A. scutulata** on dandelion
- " **bisetata** on dandelion
- " **rusticata** on hawthorn
- " **holosericata** ... on sun cistus
- " **incanaria** on dandelion, groundsel, &c.
- " **ornata** on thyme and marjoram
- " **straminata** ... —? (Larva will eat knotgrass.) Rather large, oblong-square, with the corners rounded; reddish-brown; seem to be deposited loosely
- " **subsericeata** ... on *Rosa spinosissima*?
- " **fumata** on heath
- " **strigilata** on clematis, and *Stachys*
- " **emutaria** on *Triticum repens*? Oblong, clear salmon colour
- " **aversata** on primrose, &c.
- " **emarginata** ... on *convolvulus*, *Gallium*, &c.
- T. amataria** on dock, &c.
- F. pinetaria** to Mar., on bilberry
- " **conspicua** ... on broom
- M. euphorbiata** on *Euphorbia cyparissias*
- A. strigillaria** ... on heath
- L. cæsiata** on whortleberry, bilberry, and heath
- E. sobrinata** on juniper
- Y. elutata** on nut, willow, alder, bilberry, &c.
- M. rubiginata** ... to April, on alder; large

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- M. procellata, e. on Clematis vitalba
 montanata ...on primrose
 A. rubidata, b. ...on Galium
 C. fluviata ...on Polygonum persicaria; oblong flattish, yellow, afterwards changing to brown
 P. lignata ...on Galium palustre, &c.
 vitalbata ...on Clematis vitalba
 S. vetulata ...to Mar., on buckthorn
 C. picata, e. ...on chickweed; singly, on the leaves and stems; large
 " sagittata ...on Thalictrum flavum, growing in fens
 " immanata, e. to March, probably on alder, and other trees, and strawberry, bilberry, &c.
 " prunata ...to April, on currant, gooseberry, sloe, &c., on the bark; large
 " populata ...to April, on bilberry, whortleberry, poplar; globular, large, yellow
 " fulvata ...to April, on dog rose; rose pink, large
 E. palumbaria ...on twigs of broom
 C. imbutata ...on cranberry; rather large, oblong-oval, at first pale yellow, afterwards orange
 T. chærophyllata to Feb., on Anthriscus sylvestris, and Bunium flexuosum
 C. curtula ...on poplars, sawlow
 N. cucullina ...on maple; after the 10th to the e. of the month; on underside of leaves, in shady places in woods; generally singly, but s. in twos, and rarely in threes; circular, smooth, white, s. opalescent
 " dictæa ...on poplars, sawlow, willow; laid sparsely, on the leaves
 " dictæoides ...on birch
 A. aceris ...on sycamore, horse chesnut, maple, birch, and s. oak
 L. littoralis ...on Ammophila arundinacea
 " impura ...on Dactylis glomerata
 " phragmitidis on the common reed; upon the stems
 N. lutosa ...on the common reed; upon the stems
 L. exigua ...on plantain
 C. exulis ...on various species of Poa; upon the stems
 M. persicariæ ...on Polygonum persicaria, and other low plants
 A. gemina ...on grass culms
 M. nigricans ...on clover, plantain, porphyrea ...on heath [&c.
 C. Morpheus ...on dock, teasle, &c.
 T. Orbona ...on broom, & various plants
 " pronuba ...on stalks of grass, and ears of corn
 N. augur ...on low plants, hawthorn, sawlow, &c.
 " festiva ...on violet, foxglove, sawlow, &c.
 " confusa ...on Silene acaulis, and other low plants
 T. subtusa, e. ...to Mar., on poplar, upon the twigs; hatch in the spring
 D. carpophaga ...on Silene inflata, and Lychnis; upon the fl.
 H. adusta ...on hawthorn, sawlow; upon the leaves, and twigs
 C. umbratica ...on sowthistle, lettuce; upon the leaves
 P. v-aureum ...on nettle, &c.; singly
 A. pyramidea ...on oak, birch, elm, willow; in crevices, upon the bark; small
 M. typica ...on dock, low plants, &c.; in clusters, upon the leaves
 H. proboscidalis to March, on nettle; rather large, globular (slightly oval) indented on upper side; pale yellow
 C. margaritellus probably among damp grass, in open woods; "greenish-yellow, oblong, and slightly oval, rounded at each end, one end slightly smaller; surface shining, covered with slight oval depressions placed side by side—not end to end—and arranged in wavy longitudinal lines."

LARVÆ]

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Some few of the larvæ to be found this month occur in the list with the "h" annexed, signifying that they hibernate. These are, of course, now extremely small, and at this busy period of the year, unless required for purposes of observation, will be passed over by the Collector, until they reappear in the spring, in a state approaching maturity, especially as it is generally found to be a "ticklish job" to imitate the natural conditions sufficiently to preserve small larvæ alive through the winter.

During hot summers, and not unfrequently in confinement, especially with a little forcing, "double broods," or second appearances, of an insect not ordinarily appearing twice in a year, will come upon us. Sometimes only a portion of a brood feeds up rapidly, and the second imago emerges before the winter. *S. ocellatus*, and *S. populi* are pretty regularly double-brooded in the South and West of England, in confinement, without forcing, though we believe a second brood of *S. ocellatus* has never been seen at large. If the summer be hot, a second brood of *S. populi* not unfrequently occurs, and then the larvæ appear this month.

- P. Machaon* ... *Peucedanum palustre*, and other *Umbelliferæ*; in fens
A. cardamines ... *Cardamine*, *Erysimum*, &c.; on the seeds
G. rhamni, b. ... buckthorn
C. Edusa Dutch clover, lucerne, &c.
 " *Hyale* clover, melilot
A. Euphrosyne, h. dog, and sweet violet
 " *Selene*, h. ... dog, and sweet violet
M. Cinxia, h. ... *Plantago lanceolata*
V. Antiopa willow, birch, poplar, nettle
 " *Io* nettle, feeding exposed, generally gregarious
 " *Atalanta* nettle; feeding concealed in curled-up leaves
 " *cardui* thistles; under a web, from 3 to 6 or so, on a plant. Will also eat nettle
S. Ægeria, b. 2. ... grasses
 " *Megæra*, b. 2 grasses
C. Pamphilus, 2 grasses
T. rubi, b. bramble; buds, and fl.; also broom, *Genista*, birch, *Salix fusca*, and bilberry
 " *betule* sloe, birch; generally stunted bushes
L. boetica *Collutea arborescens*
 " *agestis*, 2 ... *Erodium cicutarium*
 " *Adonis*, e. 2. ... *Hippocrepis comosa*, &c.
- L. Alsus* *Anthyllis vulneraria*, in the fl.-heads, or legumes; full grown about the m. of the month, but do not change to pupæ till after the winter
 " *Arion*, h. ? ... thyme; in the fl., or among the seeds when young; is supposed to hibernate
N. Lucina primrose, and cow-slip; eat small holes in the leaves
T. Tages *Lotus corniculatus*
H. sylvanus grasses; in rolled-up blades
 " *comma*, b. ... trefoil, and other *Leguminosæ*; in rolled-up leaves
S. convolvuli ... small convolvulus, balsam, &c.; hides under sods
D. lineata *Galium*, vine, &c.
M. fuciformis ... *Lychnis*, *Scabiosa*, *Galium*, honeysuckle, &c.
 " *bombylifomis* *Scabiosa*
S. ichneumoniformis in r. of *Lotus corniculatus*
 " *muscæformis* in stems of *Statice armeria*. The larva is found from this month to Sept., and is supposed to be 2 yrs. feeding up
H. sylvinus at r. of sorrel, and dock; 2 years feeding
Z. nubigena, h. ... thyme
 " *meliloti*, e. h. *Lotus corniculatus*, vetches, &c.; partial to chalky soils

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- Z. trifolii, h.trefoil, vetch
 „ lonicera, h. ...clover, grasses
 „ filipendulæ h. Lotus corniculatus, &c.
 L. molybdeola, h. lichens
 D. pulchella.....field forget-me-not
 L. monacha, b. oak, beech, apple, birch, fir, &c.; hides in the crevices of the bark
 O. antiquavarious trees, and plants
 D. corylibeech, nut, birch, alder, oak, willow
 E. lanestrishawthorn, sloe, &c.; in large nests of silk
 B. neustriasloe, hawthorn, fruit-trees, &c.; gregarious, in a web, until nearly full-fed
 „ castrensis, b. Artemisia maritima, and Daucus maritimus. Feed in the sunshine. Will also eat knotgrass, chrysanthemum, wild cherry, and various trees, if sprinkled with salt water
 E. versicolora ...birch
 P. syringaria, h. lilac, privet, elder, honeysuckle; s. feed up this month, and a second brood appears in August
 E. alniariaalder, birch, sawlow, beech, &c.
 „ tiliariaoak, sawlow, birch, alder
 „ fuscantaria, b. ash, privet; eats round holes in the leaves
 „ angularia ... oak, birch, beech, &c.
 B. hirtaria.....lime, elm, ash, and fruit trees
 A. prodomaria oak, birch, elm, nut
 T. consonaria ...beech, oak, birch
 B. fuliginaria ...fungi; on timber
 P. baiularia, h.oak. Covers itself with fragments of leaves, &c., after every moult
 E. omicronaria, e. maple; s. beech
 „ punctariaoak
 „ pendularia ...birch
 A. trigeminata h. — ? probably some low plant; will eat knotgrass
 A. ornata, s., h. thyme, marjorum; will also eat mint
 „ promutata ... yarrow, mugwort, creeping cinquefoil
 „ straminata, h. — ?
 „ mancuniata ... — ? will eat knotgrass
 „ subsericeata... — ? will eat knotgrass
 „ emutaria, h.Triticum repens; will also eat M. lupulina, L. corniculatus, Chenopodium, mint, and knotgrass
 „ emarginata ...convolvulus, Galium
 C. pusaria.....oak, nut, alder, birch, sawlow
 C. temeratasloe, wild cherry, buckthorn?
 „ taminatawild cherry, sawlow, buckthorn?
 A. pictaria (?) ...stunted, and unhealthy-looking sloe bushes
 N. pulveraria ...sawlow, nut, privet
 F. carbonaria ...sawlow, birch
 „ atomariaCentaurea, trefoils, &c.
 A. citraria.....wild carrot, trefoil, &c., near the coast
 H. aurantiaria ...hawthorn, birch, oak
 E. decolorata, b. to m. seed-capsules of Lychnis dioica
 E. venosata in seed-capsules of Silene inflata, and Lychnis dioica
 „ pulchellata ...in foxglove fl.
 „ valerianata ...Valerian officinalis, fl.
 „ plumbeolata Melampyrum pratense, fl.
 „ isogrammata clematis, fl.-buds
 „ pygmæata, m. Stellaria holostea, fl. Will also eat Cerastium tomentosum, fl.
 „ lariceatalarch, and spruce
 „ pusillataspruce
 „ indigatajuniper, and Scotch fir; will eat cypress, in confinement
 „ vulgata.....hawthorn, willow, golden rod, ragwort, &c.

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- E. dodoneata ...oak
 " abbreviata ...oak
 " coronatafl. of clematis, worm-wood, bramble, Eupatorium cannabinum, golden rod, wild angelica, &c.
 L. viretataprivet, and Actæa spicata; when young, on the unripe berries
 T. variataScotch fir, larch
 M. ocellataGalium
 M. unangulata ...chickweed
 " galiataGalium sextatile
 C. munitata, h. groundsel
 " ferrugataground ivy, Galium, chickweed
 S. certata, b. ...barberry; between united leaves
 C. psitticataoak, lime, apple, rose; probably also birch, hawthorn, willow
 " russata, 2. ...strawberry, birch, hawthorn, willow, &c.
 " immanata.....strawberry, bilberry, birch, alder, &c.
 " silaceata Epilobium, and Circea lutetiana, &c.
 E. cervinaria ...mallow, hollyhock
 A. plagiata Hypericum perforatum, fl.
 L. griseataSisymbrium Sophia (seed pods); on the coast; will also eat Erysimum cheiranthoides
 C. obliquaria ...broom
 D. falcula birch; also oak, alder, willow, poplar
 " unguicula..... beech; generally on the stunted bushes
 C. spinula, 2. hawthorn, sloe, mountain ash
 D. furcula willow, willow, poplar
 " bifidapoplars
 " vinulawillows, poplars, willow; by preference the Lombardy poplar
 P. bucephalaelm, oak, lime, willow, beech, nut, &c.
 C. anachoreata, b. poplars, willows
 C. reclusa, b. between united leaves of willows, aspen, willow
 P. palpina..... willows, willows, poplars, birch
 N. camelinaoak, beech, birch, maple, nut, alder, apple, willow, aspen, hawthorn
 " cucullina, c.maple, sycamore
 " carnelitabirch
 " dictæoides ...birch
 " dromedarius birch, alder, nut
 " tritophusbirch, poplars
 " Chaoniaoak
 " Dodoneaoak, and birch
 C. orpoplars; between the leaves
 " ocularispoplars
 " flavicornis ...birch; in rolled-up leaves
 " ridensoak; between united leaves
 D. Orionbirch, oak; birch is recommended in feeding, as an alternative diet
 A. megacephala poplar
 " strigosa.....hawthorn; chiefly in Cambridgeshire, and in chalky districts
 " alni hawthorn, alder, willow, oak, lime, rose, elm, nut, beech, Spanish chesnut, horse chesnut, sycamore, poplar, willow, bramble. Has been found, at rest, on palings, &c.
 " rumicis bramble, plantain, knotgrass, and other low plants
 " auricomabramble, birch, oak, bilberry
 " menyanthidis Menyanthes trifoliata, heath, willow, bramble, Myrica gale
 L. CommaDactylis glomerata, and other grass, also sorrel
 N. typhæ, c. ...in stem of Typha latifolia
 G. flavago.....inside thistles, Lappa, elder, foxglove, &c.; feeding on the pith
 H. petasitisin r. and stems of butter burr, and burdock

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JULY

- H. micaceaat the base of leaves of *Carex*, and inside stems, and r. of *Equisetum arvense*, and *E. fluviatile*, and dock
- X. conspicillaris *Lotus corniculatus*, and other low plants
- N. saponaria ...*Silene*, *Lychnis*, and other low plants
- M. albicolon.....*Atriplex*, and *Chenopodium*, on coast-sands, &c. ; also lettuce, &c., in gardens
- " brassicæcabbage, dock, *Chenopodium*, *chrysanthemum*, &c. [atum
- C. Haworthii ... *Eriophorum vagin-*
- H. palustrisplantain, and other low plants
- A. suffusa,r. of spinach, lettuce, radish, &c.
- " sauciaplantain, dock, and other low plants
- " segetum, h.in r. of turnips, &c.
- " corticea, h.*Chenopodium*
- " cursoria *Euphorbia esula*, sandwort, sea violet, &c.
- " triticir. of sandwort, sea violet, and other low plants
- " præcox.....sandwort, sea violet, chickweed, and other low plants ; on the coast ; also dwarf willows
- N. plecta *Galium verum*, *Asperula odorata*
- " festiva, h.violet, willow, foxglove, &c.
- " rubilow plants
- T. piniperda.....Scotch, and other firs ; resembles the "needles," on which it feeds
- T. gothicasallow, hawthorn, oak, &c. ; also dock, nettle, laurel, broom, lilac, &c.
- " leucographa plantain
- " rubricosadock
- " instabilissloe, willow, oak, dock, and other low plants
- " stabilisoak, elm, hawthorn, &c.
- " graciliswillow, willow, low plants
- T. crudaoak, nut ; also other caterpillars
- A. liturameadow sweet, and other low plants ; also oak, willow, alder
- C. vacciniielm, oak, willow, and low plants
- D. rubiginea.....apple, dandelion, and other low plants
- C. xerampelina ash
- D. carpophaga...*Lychnis*, and *Silene inflata*, seeds
- " capsicola ...*Lychnis*, and *Silene*, seeds
- " cucubali*Lychnis*, *Silene inflata*, and *Cucubalus bacciferus*, seeds
- " albimacula ..*Silene nutans*, seeds ; and s. *S. inflata* ; in dry and hilly woods. When young, conceals itself in the seed-capsule, and afterwards at the root, crawling up, after sunset, to feed on the unripe seeds. In confinement will also eat seeds of *Silene maritima*, and *Lychnis dioica*
- " conspersa.....*Lychnis flos-cuculi*, and *Silene inflata*, seeds
- " compta.....garden pinks, and other *Caryophyllæ*, seeds
- " cæsia*Silene maritima*, *S. inflata*
- H. dysodea .. .fl., and seed-heads of *Sonchus*, and *Lactuca*, (lettuce, garden and wild)
- " serenafl. of sow thistle, hawkweed, wild lettuce, &c.
- P. xanthomista...violet, harebell, &c., at night
- " flavocincta ...chickweed, groundsel, mint, everlasting pea, &c., plum, &c.
- D. templiin stem, and r. of *Heracleum sphondylium*
- E. lichenea, s. ...from Nov., ragwort, and various low plants, on the coast
- A. Aprilinaoak ; hides in the bark crevices

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- M. oxyacanthæ hawthorn, sloe
 H. adusta, h. ...hawthorn, and sal-
 low, when young; afterwards,
 low plants
 " glauca ...sallow, birch, bil-
 berry, heath; will eat lettuce,
 in confinement
 " peregrinaChenopodium, and
 Salsola kali
 " chenopodii ...Chenopodium
 " suasaplantain, lettuce,
 knotgrass, &c.
 " thalassinahoneysuckle, sallow,
 broom, knotgrass, &c.
 " genistæbroom, chickweed,
 Silene, knotgrass, &c.
 X. lithorizahoneysuckle
 C. perspicillaris Hypericum
 C. exoletascabious, campion,
 rest harrow, Eryngium mariti-
 mum, dock, turnip, asparagus,
 &c.
 X. rhizolitha ...oak
 " semibrunnea willow, ash
 " petrificata ...oak, lime, birch
 C. verbascimullein, figwort
 " scrophulariæ figworts, mullein
 " lychnitisseeds of white, and
 black mullein
 " gnaphaliigolden rod
 " umbratica Sonchus, lettuce,
 &c.; hides by day under leaves,
 near the ground; feeds on the
 upper leaves, and fl. at night;
 very variable
 H. marginata, e. rest harrow, pre-
 ferring the fl.; also Arenaria,
 and Hyoscamus; knotgrass, in
 confinement
 " peltigerarest harrow, Hyos-
 camus niger, marigold, and
 several coast plants
 " armigera wild mignonette,
 preferring the fl.
 " scutosa Artemisia campe-
 stris
 A. myrtilliheath
 H. arbutiCerastium arvense,
 forget-me-not, &c.
 A. sulphuralis ...small convolvulus
 A. luctuosasmall convolvulus;
 feeds by night
 H. uncasedge (Carex)
 B. parthenias ...birch; s. oak, and
 beech
 P. orichalcea ...Eupatorium canna-
 binum
 " chrysitis, h....thistle, Lappa, net-
 tle, dead nettle, &c.
 " festucaereeds, sedges, and
 grasses; near the sea
 " gamma nettle, hop, and
 most low plants
 G. libatrix willow, sallow,
 poplar
 C. fraxiniash, poplars
 " nuptaSalix fragilis, poplar,
 &c.; often found hiding in the
 crevices of the bark, or under
 detached pieces
 O. lunarisoak
 H. proboscidalis, h. nettle
 " crassalisheath
 H. costæstrigalis thyme
 P. punicealis ...Origanum vulgare,
 between the leaves
 " purpuralis ...Mentha arvensis,
 between united leaves
 " ostrinalisvar. of P. purpuralis?
 R. sanguinalis ...thyme, fl.
 E. cingulalis Salvia pratensis,
 under the leaves
 A. niveus, b. ...in a case, under the
 leaves of Potamogeton
 B. lupulinalis ...in stems of hop
 " terrealis, h. ...golden rod, fl., &c.
 " asinalis, e. ...madder, fl., and
 young seeds
 P. forficatiscabbage, horse-
 radish, &c.
 S. sticticalisArtemisia
 S. lineolalis, b. the lichens on sloe,
 Parmelia parietana, and P.
 olivacea
 " coarctalis moss
 N. genistella, b. furze; also Genista
 Corsica. Isle of Wight, and
 New Forest
 P. adelphella ...poplar, willow
 R. formosella ...elm, birch

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- H. prasinana ...oak, &c.
 A. prodromana *Potentilla anserina*,
 and most low plants
 P. sponsanabeech, elm
 " mixtanaheath
 " Caledoniana *Myrica gale*
 " cristanadwarf willows, and
 hawthorn; between united leaves
 " hastianadwarf willows
 " aspersana*Potentilla*, and
 meadow sweet
 " Shepherdiana hemp agrimony,
 meadow sweet; in the tops
 " comariana (?) strawberry
 P. marginana ...teazle, and probably
 seed-heads of *Compositæ*
 S. euphorbiana...*Euphorbia paralis*,
 heads
 M. consequana...*Euphorbia paralis*
 P. rugosana*Bryonia dioica*
 B. uliginosana ...*Lythrum salicaria*;
 in fens
 P. myrtillana ...*Vaccinium*
 G. nævanaholly
 P. immundana...in leaves of birch,
 and alder
 E. nigricana.....in pea pods
 " pisanain pea pods, and
 vetches
 S. dorsanain pods of *Vicia*
lutea, and *Orobus*
 " perlepidana ...in *Orobus* pods
 C. canathistle heads
 " conterminana lettuce, fl., and
 other *Compositæ*
 T. mediana.....seeds of *Umbelliferæ*
 E. curvistrigana fl. of *Lactuca muralis*
 " cilianaseeds of cowslip
 " anthemidana *Erigeron acre*, fl.
 A. cnicanathistle stems
 T. hyemana ? ...oak
 E. gelatellabetween willow, or
 hawthorn leaves
 P. radiellain a case, on grass
 T. fuscipunctella on all kinds of waste
 substances
 N. scabiosellus, h. in seed-heads of
Scabiosa arvensis; in the
 autumn in its case, on various
 low plants
- N. cupriacella, h. in seed-heads of
 teasle, and *Scabiosa succisa*
 S. pyrellahawthorn, apple,
 pear, &c.
 Y. viginipunctella *Sedum telephium*
 C. pyraustella ...on *Thalictrum aquile-*
legifolium, on the Continent
 Y. sylvestra, b. ...oak
 D. costosella ...furze, and broom, fl.
 " pallorella.....in leaves of *Centau-*
rea scabiosa
 " umbellella ...furze
 " conterminella shoots of willow
 " ocellellawillow
 " ciliellamost *Umbelliferæ*,
 and *Angelica*
 " emeritella ...in tansy leaves
 " pulcherimella *Bunium flexuosum*,
 fl.
 " chærophyllovorella *Chærophyl-
 lum*
 " nervosella ...parsnip, & *Enanthe*
crocata
 " olerella, b. ...*Achillea millefolium*
 G. hippophaella *Hippophae rham-*
noides, between the terminal
 leaves
 " cuneatella ...willows
 " longicornis? *Erica cinerea*
 " acuminatella in thistle leaves
 " costella*Solanum dulcamara*
 " obsoletella ...in stems of *Cheno-*
podium
 " atriplicella ...*Atriplex*, and *Chen-*
opodium
 " solutella ?.....*Genista pilosa*
 " paupella*Inula dysenterica*,
 in fl.-heads
 " inopella*Inula dysenterica*, in
 fl.-heads
 A. granitella.....*Inula dysenterica*
 " autumnitella *Solanum dulcamara*
 R. Erxlebenella *Tilia*
 G. fischeriella ...in seeds of *Dactylis*
glomerata, and other grasses
 CE. dentellaseeds of *Chærophyl-*
lum, and *Angelica sylvestris*
 P. obscurepunctella honeysuckle
 T. resplendens...alder
 G. alchimiella ...oak [more
 " hemidactylella maple, and sycam-

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- G. semifasciella maple
 " populella ...birch, aspen
 " elongellain rolled-up leaves
 of birch, and alder
 " tringipennella plantain
 " omisella, b. *Artemisia vulgaris*
 " Hoffmanniella *Orob. niger*
 C. Brogniartella oak
 O. avellanaella ...nut
 " anglicella.....hawthorn, sloe
 " betulævorella birch
 " torquilella ...sloe
 C. troglodytella *Inula dysenterica*,
 and *Eupatorium cannabinum*
 " siccifoliella ... hawthorn, apple,
 birch
 " limosipennella elm
 " ardeæpennella, b. oak
 L. Raschkiella...*Epilobium angustifolium*
 " epilobiella ...*Epilobium hirsutum*
 " decolorella ...in stems of *Epilobium montanum*, *E. parviflorum*,
 E. palustre, *E. hirsutum*, &c.,
 producing gall-like swellings
 " subbistrigella in seed-pods of *Epilobium montanum*
 C. Schrankella... *Epilobium alsinifolium*
 A. Langiella.....*Circæa lutetiana*
 A. modestella ...in capsule of *Stellaria holostea*
 C. festaliella.....honeysuckle, raspberry, bramble
 A. Pfeifferella ...dogwood
 S. Brunnichella *Melissa clinopodium*
 E. poella*Poa aquatica*
 " Kilmunella ...*Carex*
 " nigrella*Poa trivialis*, &c.
 " subnigrella ...*Bromus erectus*
 " Bedelliella ...*Avena pratensis*
 " subobscuraella *Holcus mollis*
 " zonariella.....*Aira cæspitosa*
 " cerussella.....reed
 " biatomella ...*Carex glauca*
 T. marginea (emyella) in bramble
 L. roborellaoak
 " hortellaoak
 " Amyotella ...oak, nut
 " lantanella.....*Viburnum lantana*
 L. irradiellaoak
 " Bremiella ...vetches
 " lautella.....oak
 " vaccinella ...whortleberry
 " cavellabirch
 " pomifoliella...apple, hawthorn
 " corylellanut, birch
 " spinicolella ...sloe
 " faginellabeech
 " torminella ...*Sorbus torminalis*
 " salicolella.....sallow
 " viminetella ...osier
 " carpinicolella hornbeam
 " ulmifoliella ...birch
 " spinolella.....sallow, willow
 " quercifoliella oak, willow
 " Messaniella ...oak, evergreen oak, chesnut, hornbeam
 " corylifoliella hawthorn]
 " Caledoniella hawthorn, birch
 " viminiella ...osier, willow
 " alnifoliella ...alder
 " Heegeriella...oak
 " Cramerella ...oak
 " tenellahornbeam
 " acerifoliella ...maple
 " emberizæpennella honeysuckle
 " Frolichiella ...alder
 " Nicelliella ...alder
 " stettinella.....alder
 " Klemannella alder
 " Schreberella elm
 " tristrigella .. elm
 " trifasciella ...honeysuckle
 " scabiosæcolella in r. leaves of
 Scabiosa columbaria
 " comparella ...poplar
 L. Clerckella ...sloe, apple, cherry, hawthorn, &c.
 " padifoliella ...sloe, birch, &c.
 C. spartifoliella broom; under bark
 " laburnella ...laburnum
 " lotella*Lotus major*
 B. aurimaculella... *Chrysanthemum*,
 and ox eye
 " ulmella.....oak
 " cristatella.....yarrow
 N. atricapitella oak
 " anomalella ...rose
 " perpygmæella hawthorn

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N. pomellaapple
 " oxyacanthella hawthorn
 " viscerellaelm
 " catharticea buckthorn
 " Septembrella Hypericum
 " cryptellaLotus
 " trimaculella...poplar
 " floslactella ...nut, hornbeam
 " salicivorella...sallows
 " myrtillella ...bilberry
 " microtheriella nut, hornbeam
 " betulicolella...birch
 " ignobilella .. hawthorn
 " acetosella.....sorrel
 " plagicolella ...sloe
 " prunetella ...sloe
 " tityrellabeech
 " malella.....wild apple

N. atricolella ...apple, hawthorn
 " arcuosella ...strawberry
 " marginecolella elm
 " glutinosella ...
 " splendissimella bramble, and
 dewberry; rarer in wild rasp-
 berry
 " luteella.....birch
 " sorbiellamountain ash
 " centifoliella, b. ... dog rose, and
 cabbage rose
 T. pulverosella...wild apple
 P. acanthodactylus Bartsia, and rest
 harrow
 " punctidactylus in seed-capsules
 of columbine
 " dichrodactylus tansy
 A. polydactyla...honeysuckle, buds

PUPÆ]

Many species are now rapidly "taking to earth," and a large number, besides those specified in the list, could be obtained by diligent searching. But at this period of the year, with

"Its glorious days of golden light,"

and

— "its virgin roses' blushes,
 Warm as when Aurora rushes
 Freshly from the God's embrace,
 With all her shame upon her face,"

greater attractions are presented by the numerous insects which may be obtained in the imago and larva states, especially as the search for many of the pupæ may be safely deferred till a later, and less busy period.

L. sinapison stems of Vicia
 cracca, and Orobus tuberosus,
 in woods
 P. brassicæon palings, walls, &c.
 " rapæon palings, walls, &c.
 " napion palings, walls, &c.
 A. cardamines ...to April, on stems of
 grass, &c.
 G. rhamni.....attached, by a thread,
 to leaves, and stems of buck-
 thorn
 V. polychloros...under copings, and
 on palings, &c., near elms
 " Ioamong nettle
 V. Atalantasuspended, within a
 chamber formed by united leaves
 of nettle
 " carduion, or near thistles
 S. Ageria.....on grass stems, &c.
 " Megæraon grass stems, &c.
 T. betulæon sloe, and birch;
 generally on stunted bushes;
 placed lengthways, on a leaf
 L. Argiolusspun up, closely
 adhering to the underside of a
 holly leaf
 L. chrysorrhæa in a slight cocoon,
 amongst leaves, &c.

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- L. disparin a slight cocoon, amongst leaves, &c.
 " monachain a web, in bark crevices of oak, birch, apple, beech, fir, &c.
 O. aptiqua to Sept., in a web, on palings, &c.
 T. cratægi.....in a compact, earthy cocoon, on, or near the surface of the ground, among hawthorn, sloe, &c.
 E. lanestriscocoon, on the ground, near hawthorn, sloe, &c.
 B. castrensis.....in a cocoon, among, or near *Artemisia maritima*, &c.
 E. erosariaunder moss, on oak, birch, &c.
 " angulariaunder moss, on oak, birch, beech, &c.
 N. zonariasub., on sand-hills
 " hispidaria.....at oak
 H. abruptaria ...spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet
 H. rupicaprarica to Jan., in a slight web, on the ground, among hawthorn, sloe, or oak
 " leucophearica... to Jan., on the ground, near oak
 " aurantiaria, e. sub., at hawthorn, birch, oak, &c.
 " progemmaria to Jan., sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 C. brumatasub., at oak, &c.
 O. dilutatasub., at oak, &c.
 L. multistrigaria to Mar., sub., about *Galium*
 E. decolorata ... to April, about *Lychnis dioica*
 E. venosata to April, about *Silene*, and *Lychnis*
 A. badiatato Mar., in earthen cocoon, on the ground, beneath dog rose bushes [rose
 " derivatato Mar., sub., at dog
 C. russataspun up, on leaf of strawberry, birch, hawthorn, willow, &c.
 E. lineolatacocoon attached to *Galium verum*, on coast sand-hills, just under the surface
 P. falcatabetween united birch leaves
 P. Cassineato Oct., sub., at oak; deep
 C. reclusaspun up, among dead leaves of willow, poplars, willow
 D. cæruleocephala spun up, at hawthorn, and sloe; on a twig, or under bark
 C. dilutaamongst leaves, &c., of oak, and birch
 N. geminipuncta in reeds; may be detected by small hole in the stem
 " lutosainside stems of common reed
 H. petasitisat r. of *Petasitis vulgaris*; below plants which have a hole in the stem
 " micacea, e. ...at r. of *Cyperacæ*, *Equisetum*, and dock
 A. cursoriaby raking sand-hills, on the coast, near *Euphorbia esula*, sandwort, sea violet, &c.
 " agathinasub., about heath
 " præcox, b. ...by raking sand-hills, on the coast, near dwarf willows, sandwort, sea violet, chickweed, &c.
 N. xanthographa sub., at various trees, and on heaths, &c.
 T. populetito Feb., sub., at poplars, especially *Populus nigra*; deep
 " miniosato Feb., amongst fallen leaves, &c.
 " mundato Mar., under moss, at base of oaks
 A. liturasub., at r. of low plants
 H. croceagosub., at oak, just below the surface
 X. citrargo.....at lime; generally between united leaves; the larva remains a long time before changing

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- X. cerago } sub., at sawlow
 " silago }
 " aurago in a cocoon, at
 beech; the larva a long time
 changing
 " ferruginea sub., at sawlow,
 poplar, &c.
 C. xerampelina, e. ... sub., at ash;
 cocoon very tender, and brittle
 T. retusa sub., at sawlow
 C. trapezina, b. at oak, birch, horn-
 beam, &c.; among leaves on,
 or near the surface
 " diffinis, b. ... at elm; spun up, on
 the trunk, or between leaves, or
 amongst rubbish, at the r.
 " affinis, b. at elm; spun up, on
 the trunk, or between leaves, or
 amongst rubbish, at the r.
 D. capsophila .. sub., about *Silene*
maritima
 " capsincola ... sub., about *Silene*
maritima
 P. chi sub., near low plants
 " Xanthomista sub., on exposed
 rocks, on Isle of Man coast
 " flavocincta ... sub., near low plants
 E. lichenea sub., by *Sedum* acre,
 &c.; on the coast
 A. Aprilina, e. sub., at oak
 H. protea sub., at oak
 C. solidaginis, b. sub., about bilberry
 X. conformis ... at alder, and birch;
 under moss, or in folded
 leaves
 C. chamomillæ... among, or near
 chamomile, &c.
 G. libatrix among willow, sal-
 low, and poplar; spun up, in
 the leaves, at end of twigs
 C. nupta, e. at *Salix fragilis*, and
 poplar; among the leaves, or in
 crevices of bark, or under loose
 bark
 " sponsa at oak; among the
 leaves, on the tree
 H. derivalis among sawlow, bram-
 ble, and dead oak leaves
 C. fascinelinus... in cocoons, just
 under the sand, among *Triticum*
junceum
 H. costella in cocoon, on leaves,
 moss, &c., round oaks
 H. scabrella in canoe-shaped
 cocoon, on leaves of hawthorn,
 moss, &c.
 P. rhododactylus on rose
 " acanthodactylus on *Bartsia*, and
 rest harrow, attached to the
 stems
 " hieracii..... on *Hieracium um-*
bellatum
 " pilosellæ on *Hieracium pilo-*
sella
 " phæodactylus on rest harrow
 " pterodactylus on convolvulus
 " spilodactylus..... on *Marrubium*
vulgare
 " tetradactylus on thyme
 A. polydactyla... on honeysuckle

IMAGOS]

The summer harvest of life now teems on every side, as with

"Purple, gold, and green, the living blossoms swarm."

This is the great month for insects in the perfect state, though the very minute species are not so numerous as in June; still all the great divisions, and especially the Noctuæ, and the Tortrices, are well represented. During the hot months of summer, the cycle of insect-life is often so rapidly completed, while the commencement and duration of that cycle vary so much according to the temperature, that not unfrequently a single month includes the time-space in which a species passes through all the stages of its existence; and

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five to six weeks the period for a brood to hatch from the egg, attain the imago state, deposit eggs, and die. Though woods and forests,

"So thick no bird betwixt their leaves could fly
But she would smite her wings,"

are the most prolific, in the number of species they yield, barren-looking places,

"Where zephyrs wave the balmy wing,
And fan the buxom air,"

will well repay a careful search. Each peculiar locality produces peculiar insects. While the dry land and level country should be made to yield their insect treasures, as they sally forth on floating gauze,

"No jewell'd queen
So rich,"

marshes and mountains, moors and mosses, hills and heaths, woods and forests, cliffs and coast sands, ought all to be diligently explored, for "beauties unespied." Tree trunks, palings, fences, and walls should not be forgotten. On the latter, if old and covered with lichen, *B. perla* will be sure to be found, and often also the rarer *B. glandifera*, much resembling in its mottled green, olive, black, and grey markings, the lichen on the wall upon which it fed when a larva. *B. abietaria* may be found resting on large larch trunks, in elevated districts, generally at no great height from the ground. They must be carefully approached, or they will be lost.

A large number of species may be now captured at light. Thatch-beating may, this month, be advantageously resumed. Heads of rushes should be examined from 9 to 10 o'clock at night, as many moths swarm at them, especially during the last fortnight in this month. Puddles, carrion, &c., attract some butterflies, especially that king of his tribe, the Emperor, who comes,

"flushed with a purple grace,"
"Prouder than when blue Iris bends."

Even a mass of the despised stinging nettle is often worth visiting, from the moths attracted to the "honey dew," on the leaves. On dull days many *Noctuæ*, as well as *Geometers*, may sometimes be found, at rest, on stumps, stones, and leaves.

Although the Collector's "sugar" is the great attraction to which the *Noctuæ* are drawn,

"Swift, as with *Dædælean* wing,"

to many members of this family light is equally alluring. In fact, bright light seems to have a highly stimulating, dazzling, and no doubt, delightful effect upon nearly the whole of the *Lepidoptera*: almost all butterflies, and a large number of moths revel in the hottest sunshine; while brilliant, artificial light seems so highly exciting that many moths "a death of rapture dare" by rushing into the burning flame. Moreover, the *Noctuæ* are not alone open to the attraction of sweets; at least some members of the other great families of the *Lepidoptera* are equally so, whether in the form of "sugar," of honey-scented flowers, or of ripe fruits. During this, the great month for captures of *Noctuæ*, the facts here briefly referred to should not be forgotten.

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- P. Machaonfens, and marshes ; chiefly Cambridge, and Norfolk
- L. sinapis, e. s. woods ; this brood is seldom so abundant as the spring brood
- P. cratægi.....near woods, &c.; local
- " brassicæ, e. 2. gardens, &c.
- " rapæ, m. 2. ...gardens, &c.
- " napi, m. 2. ...gardens, &c.
- G. rhamni, e. ...woods, lanes, &c.
- C. Edusacloverfields, railway banks, &c. ; some seasons this species is very abundant
- " Hyaleclover fields, &c., more especially near the coast ; in some seasons abundant, in others not seen
- A. Paphia.....woods ; fond of flying among bramble fl.
- " Aglaiaat fl. on hill-sides, coast sand-hills, &c.
- " Niobehill-sides, in company with Aglaia or adippe ; has been taken in the New Forest, at the Devil's Gallop, Windermere, and in Kent, between Wye and Ashford
- " adippewoods ; fond of fl. of Centaurea, &c.
- M. Athaliawoods, and heaths
- V. c-album.....gardens, hop-grounds, woods, lanes, &c. ; fond of fl., and fruits
- " urticægardens, fields, &c.
- " polychloros ...among elms, and at the sap flowing from Cossus-infected trees
- " Antiopaat fl., and at Cossus-infected trees, &c. ; s. not seen for many years
- " Io, e.woods, gardens, &c.
- " Atalanta, e. gardens, fallen fruit in orchards, and Cossus-infected trees
- " cardui, e.....attracted by thistles, &c. ; rests on dusty roads, and on the leads of tall buildings in the hot sunshine
- L. sibylla, b. ...woods, parks, forests, where honeysuckle abounds ; the flight is lower in the early morning, than later in the day
- A. Iriswoods, &c. ; fond of flying over tops of oaks ; attracted by puddles, exuvie, dead animals, &c. ; generally accompanied by T. quercus ; may be s. brought to earth by a sod, thrown up at it
- A. Galateafields, &c. ; rests on grass stems, in dull weather, and at night
- E. epiphronin marshy hollows, on mountain sides, Scotland
- " Medea, m. ...Northern moors, &c.
- S. Ægeria, e. 2. woods, & shady lanes
- " Semele, m. ...hills, dry pastures, heaths, coast sand-hills, &c.
- " Ianirafields, &c.
- " Tithonushedges, &c.
- " hyperanthus...woods, &c.
- C. DavusNorthern moors
- " Pamphilus, 2. fields, &c.
- T. quercuswoods, &c. ; flies over the tops of oak, and ash, in the sunshine, and rests under the leaves at night, and in dull weather
- " w.-album.....flies over trees, in the sunshine, especially wych elm ; is attracted by fl. of grass, and other fl. ; may be s. brought down by a clod
- " pruniwoods
- " betutæ, e. ...woods ; at fl. ; in dull, or wet weather may be found hanging from the underside of leaves of sloe, and other bushes
- P. Hippothoe ...formerly in the Cambridge fens ; now supposed to be extinct in this country
- " Phlocas, s. ...fields, &c.
- L. Ægonrests, at night, on heath, &c.
- " Alexisfields, &c. ; rests on grass stems, &c., in dull, and windy weather, and at night

IMAGOS]

JULY

- L. Corydon, e....chalk downs, and limestone hills
 " Acis..... formerly near Leominster; now supposed to be extinct in this country
 " Argiolus, e.... among holly, and ivy; this brood is seldom so abundant as the spring brood
 H. comma, e.hills, &c.
 " linea fields, and woods
 " Actæon, m....if the season is forward; on the Dorset coast, flying with H. linea; does not continue fine long after it is out
 A. atroposat rest, on palings, &c.
 D. euphorbiæ ...has occurred on the coast, and at Killing, Ireland, among sea spurge, and cypress-leaved spurge
 " galiion the sand-hills at Deal, and other parts of the coast, among bedstraw
 S. chrysidiformis at Folkestone, and Eastbourne, and probably other places on the S.E. coast; flies from about 9 to 11, a.m., and 3 to 4, p.m.; "booms along like a burnet"
 " ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast; hovers over fl.
 " muscæformis on the coast, among sea pink
 " scolæformis ...on birch trunks
 " bembeciformis among osiers, sal-lows, &c.
 Z. æsculion trees, &c.
 C. ligniperda ...on trees, and palings
 H. sylvinus, e.on heaths, and grassy lanes, and banks; flies just before dusk
 " velledaon walls, and in crevices of birch trunks
 L. asellushas been beaten
 Z. minosflies in the sunshine, and rests on fl.
 N. cucullatella ...on trees, and palings
 " strigula.....
 " centonalis.....
 N. albulalishas been taken in young ash plantations, in Kent
 N. senex, e.in wet places; flies at night
 " mundanabeaten from weeds, against loose stone walls
 S. irrorellaon lichen-covered trees
 C. miniata.....beaten from trees
 L. mesomella .. on lichen-covered trees
 " muscerda ... in fens, among alder; flies in the evening
 " aureolaon larch trunks, high up; and may be beaten from trees
 " deplanabeaten from yew, and other trees
 " lurideolacomes to fl., rests among herbage, &c.
 " molybdeola ...
 " complana.....flies at dusk, and after dark
 " griseolaon lichen-covered trees; comes to fl.
 " stramineola (var.) by moist wood-sides, and ditches
 " quadrabeaten from fir, and oak; comes to fl. of lime, &c.
 " rubricollis ...flies in the sunshine, over trees, &c.
 E. grammica.....heaths, &c.
 " cribrumheaths, &c.
 D. pulchellahas been taken flying by day, in stubble fields, probably near the field forget-me-not, its food-plant
 E. jacobæægardens, fields, &c.; flies in the sunshine
 C. caiagardens, &c.; at rest; very sluggish
 L. chrysorrhæa at rest
 " auriflua.....at rest, on hedges, trees, &c.
 " salicis, e.on willows, and pop-lars
 " disparformerly found at large; now bred artificially
 " monachaat rest
 O. cænosa.....fens, and marshes

IMAGOS]

JULY

- O. gonostigma...very local
 " antiqua.....♂ often seen flying about wildly just before rain
 B. neustriaat rest
 " castrensisat rest ; on the S. E. coast
 " quercus (callunæ) heaths, &c.
 " roboris (quercus) flies at dusk ; more frequently met with in the larva state
 O. potatoriaat rest, among coarse grass, &c.
 O. sambucata, b. flies wildly at dusk, and soon after dark ; not always quiet, when boxed
 E. vespertaria ...flies from 7 to 9, or 10, a.m.
 " apiciariahedges, &c. ; flies soon after 7, a.m.
 " advenaria.....among bilberry, and grass, in woods
 R. crategata.....hedges, &c.
 A. prunariawoods ; flies in the sunshine, also at dusk
 M. margaritata.....hedges, &c.
 E. fasciaria, h.....beaten from fir trees ; flies at night
 P. syringaria ...gardens, &c. ; flies at dusk, over fl.
 S. illunaria, b.....at rest, on trees, &c.
 " illustraria, e. 2. the summer brood, or var. delunaria
 C. elinguarua, e. hedges, &c.
 E. erosariaat rest
 " angularia.....on trees, &c.
 C. glabraria, e. on fir trees, &c.
 " lichenaria.....on lichen-covered oaks
 B. repandata ... } gardens, &c. ; come
 " rhomboidaria } to sugar. The
 " perfumaria } whole of this
 " abietaria, b. } genus may be
 " roboraria } found at rest, on
 " consortaria } tree trunks ; most
 " } of them skittish in
 " } presence of danger,
 " } so must be
 " } approached cautiously
 G. obscurata ...s. flies by day
- D. obfuscata.....on heaths, about Scotch mountains
 P. trepidaria.....flies by day ; on mountains, in Scotland
 M. cineraria.....
 P. cytisariaheaths, forests, and waste places, on the coast ; may be beaten from broom, furze, and heath
 G. papilionaria...comes to l. ; flies at dusk ; may be beaten from trees, in the day time ; has been found among brake fern
 " smaragdaria...on the Kent, and Essex coasts
 I. vernaria, b. ...beaten from clematis, chiefly in elevated, and exposed situations
 P. baiulariaamong oak ; flies at dusk
 H. thymiaria ...hedges, &c.
 H. Auroraria ...
 A. sylvata.....woods
 " Blomeraria .. on wooded hill-sides, near wych elms, at rest, on tree trunks
 E. heparataamong alder
 V. cambricaria...at rest, on rocks
 A. rubricata.....heaths, and coast sand-hills ; flies just before sunset
 " scutulatahedges, &c.
 " bisetatahedges, &c.
 " contiguarua ...Conway, Bangor, &c.
 " herbariata ...has been found in herbalists' shops
 " rusticataPortland, and Northfleet,—very local ; resting flat, on ivy leaves ; flies at dusk
 " dilutaria
 " interjectaria...Plumstead marshes, and Folkestone
 " holosericata...Bristol, and Thetford
 " incanariaon palings, walls, &c., near gardens
 " ornatagrassy hills, &c.
 " straminata ...
 " mancuniata ...
 " subsericeata...beaten from wild rose bushes, on hills
 " immutatafens, &c.

IMAGOS]

JULY

- A. strigilata Folkestone, among clematis
 " emutaria salt marshes of Kent, (Sheerness), Norfolk, (King's Lynn), and the New Forest; flies at dusk. The Sheerness specimens are more tinged with rose-colour, than the others
 " aversata woods, &c.
 " inornata at rest, on fir trunks; flies at dusk
 " degeneraria at rest, on various plants, and on the rock, at Portland
 " emarginata, b.
 T. amataria hedges, and waste places
 C. exanthemaria woods
 M. alternata
 " liturata fir woods
 H. vauaria in gardens
 S. plumaria heaths, &c.
 F. pinetaria Scotch heaths; flies in the sunshine
 " conspicua on broom
 M. euphorbiata, 2? woods
 S. sacraria has been taken at l., at sugar, and at fl.; and also flies by day
 L. purpuraria ... on dry hills, in the North; flies by day
 A. ononaria among rest harrow
 A. strigillaria ... on heaths
 A. grossulariata in gardens, and hedges
 " ulmata woods, &c., near wyth elms
 L. adustata among spindle
 L. marginata ... woods
 L. ruficinctata ... woods
 " salicata
 " olivata woods
 E. tæniata the Lake district, &c.
 " unifasciata ... local
 " bifasciata? ... in an old hedge
 " ericetata heaths; at fl.; flies by day
 " blandiata hills, &c.
 E. centaureata ... on palings, &c.
 " succenturiata beaten from Hawthorn
 " subfulvata ... at fl.
 " arceuthata ... flies among juniper, and savine
 " trisignata
 " fraxinata among ash
 " innotata at Wallasy
 " constrictata ...
 " subnotata often on river banks
 " campanulata at fl., in woods, &c.
 " vulgata, 2. ... at rest
 " expallidata ...
 " absynthiata ...
 " knautiata among Knautia arvensis, very local
 " tenuiata beaten from willows
 " subciliata, e. beaten from maple
 " sobrinata beaten from juniper, and at fl.
 " pumilata, 2. ...
 T. firmata among larch
 Y. elutata woods; flies high, when disturbed
 M. rubiginata ...
 " albicillata ...
 M. hastata flies in the sunshine, generally after 2 p.m.; may be beaten from birch, and other trees; very pugnacious
 " tristata
 " procellata ... among clematis
 " unangulata ... beaten from hedge banks
 " rivata
 " sociata, e.
 " montanata ... woods
 C. munitata fond of settling on underside of fallen trees
 " quadrifasciaria on palings, &c.
 C. bilineata hedges
 " fluviata at l., at sugar, and at fl.; at Rannoch, &c.
 P. tersata among clematis
 " lignata
 S. vetulata, b. ... among buckthorn
 " rhamnata comes to fl.
 " undulata woods
 C. picata beaten from bushes

IMAGOS]

JULY

- C. sagittatain fens
 " russatawoods
 " immanata.....
 " reticulatathe Lake District,
 &c.
 " prunata
 " testata
 " populata
 " fulvatabeaten from bushes
 " pyraliatagardens, and fields
 " dotatanear woods
 P. comitata
 E. mensuraria ...
 " bipunctaria ...on the chalk, and
 limestone
 " lineolata ...rests on coarse grasses,
 on the coast
 C. imbutata
 L. griseataon the Norfolk coast,
 among *Sisymbrium*
 C. obliquaria ...among broom; does
 not fly till between 10 and 11,
 p.m.
 T. chærophyllata in grassy places, in,
 and near woods; flies in the sun-
 shine
 P. lacertulabeaten from birch
 D. furcula
 " bifida
 S. fagiat rest, on tree
 trunks, in beech woods
 P. bucephala ...at rest; at light
 C. curtula, 2.....
 P. palpina, b. ...comes to l.
 N. camelinaat light; hides on
 fronds of fern, and in, and on
 trees
 " cucullina“comes out mostly
 when the glass is near 80 deg.,
 and a thunderstorm is imminent”
 " dictæa, b.....at rest, at base of
 willows, and large poplars
 " dictæoides ...rests on birch
 " tritophus
 " ziczac, b.hides in bark
 crevices of poplar
 T. derasa
 " batisflies over brambles,
 at dusk
 C. duplaris
- C. fluctuosathis, and C. or do
 not always travel quietly, when
 boxed
 " or, b.s. on aspens
 B. glandifera.....on old walls
 " algæ
 " perla.....on old walls
 D. Orionat rest, on oak trunks
 A. tridens } at rest, on trees,
 " psi..... } palings, &c.
 " leporinarests on tree trunks,
 s. high up
 " acerison trunks of syc-
 more, and palings, near
 " strigosaat sugar
 " ligustri, b. ...on ash trees
 " rumicis.....
 " auricoma
 " myricæ.....heaths, &c. in the
 N.
 L. conigerain grassy places
 " turca.....among grass
 " lithargyria, h.
 " obsoletain wet places
 " Loreyi
 " putrescens ...among grass
 " littoralison coast sand-hills;
 settles on tufts of *Ammophila*
arenaria
 " pudorinamarshes, and fens
 " comma
 " straminea ...marshes, and fens
 " impura
 " pallens.....
 " phragmitidis marshes, and fens
 T. Bondiiin wet places; rests
 on stems of grass, at night
 S. ulvæmarshes, &c.
 N. despectamarshes, and fens
 " elymion coast sand-hills;
 very sluggish; hides among
Elymus arenarius, and *maram*
 grass, from which it may be
 shaken
 " neurica.....in wet places
 " geminipuncta in wet places
 G. flavagoin marshy spots, near
 thistles
 H. nictitansat ragwort, thistle,
 &c., and among grass

IMAGOS]

JULY

- A. putris*at r. of trees
X. rurea
 " *lithoxylea*.....among grass
 " *subultristis*
 " *polyodon*
 " *hepatica*
 " *scolopacina* ...damp, grassy places
A. Australisamong grass, near
 the S. coast ; comes to l.
N. saponaria ...at sugar, and l.
C. graminis, e. ...on commons, &c.; s.
 at ragwort, and thistle fl.
P. leucophæa ...among grass
C. cythereadry, grassy places
C. exulishas been taken at
 sugar
M. abjectaamong coarse grass
 " *anceps*marshes, and fens
 " *furva*in grassy places
 " *brassicæ*hides on palings,
 walls, &c.
 " *persicariæ* ...on palings, under
 eaves, walls, &c.
 " *connexa*
 " *gemina*in grassy places
 " *unanimis*marshes, and fens
 " *ophiogramma* marshes, &c.; s. at l.
 " *fibrosa*in marshy places
 " *oculea*
M. strigilis
 " *fasciuncula*at fl.
 " *literosa*on the coast
 " *furuncula*
 " *arcuosa*flies at dusk, for a
 short time, then settles on fl.,
 and the foliage of its food-plant
P. captiuncula (expolita) at Darling-
 ton
C. Haworthii ...
G. trilinea
H. palustriss. comes to l.
A. caliginosa ...
C. Morpheus ...
 " *alsines*
 " *blanda*
 " *cubicularis* ...beaten from thatch ;
 flies in hay fields
R. tenebrosa
A. valligeraat fl. ; mostly on the
 coast
- A. suffusa*
 " *fennica*
 " *saucia*at l., sugar, and fl.
 " *segetum*
 " *lunigera*, e. ...
 " *exclamationis* often in kitchen
 gardens
 " *corticea*
 " *cinerea*
 " *ripæ* under pieces of
 wood, &c., near the coast
 " *cursoria*by beating, on coast
 sand-hills
 " *nigricans*
 " *tritici*
 " *aquilina*
 " *porphyrea* .. among heath
 " *præcox*on sand-hills, by the
 coast
 " *ravida*
 " *pyrophila*at fl.
 " *helvetina*
 " *lucernea*
 " *Ashworthii* ...very local
T. ianthina
 " *fimbria*at l., and sugar
 " *interjecta*
 " *subsequa*at l., and sugar
 " *Orbona*at l., and sugar
 " *pronuba*at l., and sugar
N. depuncta
 " *augur*
 " *pecta*
 " *flammatra* ...
 " *c.-nigrum*comes to l.
 " *ditrapezium* ...New Forest, Birch-
 wood, &c.
 " *triangulum* ...
 " *rhomboidea* ...at l.
 " *brunnea*
 " *festiva*
 " *conflua*
 " *Dahlia*
 " *subrosea*in fens
 " *rubi*
 " *umbrosa*at ragwort fl.
 " *baia*
 " *sobrina*at Rannoch
 " *neglecta*, e. ...at sugared rags, on
 heather

IMAGOS]

JULY

- N. xanthographa*
P. alpinahas been taken in Perthshire
O. suspecta
 " *upsilon* flies over willows
X. ceragoon leaves, and twigs of lime trees, at night
T. subtusacomes to l.
 " *retusa*, e.comes to l.
E. fulvago, e.on heath fl. ; Sherwood, and the Lake District
D. oocomes to l.
C. trapezina
 " *diffinis*comes to l.
 " *affinis*comes to l.
E. ochroleuca ...at fl. ; rests on knapweed, thistles, &c.
D. irregularis ...at rest, on viper's bugloss, and in crevices of bark of trees
 " *carpophaga*, b. at dusk, at Silene fl. The whole genus are attracted by fl.
 " *capsophila* ...
 " *consersa*.....
 " *cæsia* generally on the coast
H. dysodea, b.at fl. of red valerian
 " *serena*, b. on trees, palings, &c., near kitchen gardens, &c.
P. chion trees
E. viminalis, b. rests among willows
P. meticulosa ...
E. lucipara
A. herbida woods, &c. ; very local
 " *occulta*.....at rest ; flies early in the morning ; unquiet when boxed
 " *tincta*on trees, stumps, and palings ; unquiet when boxed
 " *advena*, b. ...at fl. ; rests on stumps, and trees
H. adusta
 " *glauca*
 " *dentina*.....on trees
 " *chenopodii* ...at fl., and l.
 " *oleracea*among herbage
 " *pisi*
H. thalassini, b.
 " *contigua*
 " *rectilinea*at rest, on stones, &c., on dull days
C. lychnitis
 " *asteris*
 " *absynthii*
 " *chamomillæ*...at rest
 " *unibratica* ...at rest, on palings, and at fl.
H. marginata ...
 " *peltigera*may be started from herbage
 " *dipsacea*flies over fl., in the sunshine
A. myrtillion heaths ; flies in the sunshine
A. sulphuralis ...at light ; s. on fl. of knapweed, in the day time ; flies quickly a little way, when disturbed
A. luctuosaflies in the sunshine, over fl., in clover fields, &c.
 " *solaris*
E. venustula
 " *fuscula*s. in fir woods
H. unca.....marshes, and fens
M. ostrina.....in sheltered spots, on sand-hills
 " *paula*?at Freshwater, Isle of Wight
A. urticæ } among, or near
 " *triphasia* } nettle
P. orichalcea ...on the coast
 " *chrysitis*among nettle
 " *bractea*
 " *iota*among *Glechoma hederacea*
 " *v.-aureum* ...at lychnis fl., &c.
 " *gamma*flies in the sunshine
 " *interrogationis* flies wildly ; rests on rocks, and stumps, in dull weather
A. pyramidea ...
 " *tragopogonis* hides in windows
M. typicarests on walls, &c.
 " *maura* s. rests on inner surface of roofs of outhouses
T. pastinumbeaten from bushes
 " *craccæ*

IMAGOS]

JULY

- S. anomalaat heath fl., at night, and flies along hedge-rows ; remains fine but a very few days after emergence
- C. nupta, e.at rest, on trees and walls ; soon alarmed, when approached ; comes to l.
- " promissa ... } in the New Forest,
" sponsa } Norfolk, &c. ; all the genus are rest-
less when boxed
- P. æneaflies in the sunshine
- M. salicalisamong long grass, and marshes, in wood-paths, and young underwood
- H. proboscidalis among nettle
- " rostralisin gardens ; at sugar
- " crassalis, b.on heaths, among bilberry
- H. albistrigalis...at rush fl., and s. sugar
- " costæstrigalis at rush fl., and s. sugar
- S. turfosalisin marshy places
- R. sericealisin marshes, and damp woods
- S. emortualis ...has been taken at sugar
- H. derivaliscomes to l.
- " barbalisbeaten from undergrowth
- " tarsipennalis woods, &c.
- " grisealiswoods, &c.
- " cribralisin fens, &c.
- A. flexulahas been beaten from hedges
- O. dentalison the coast, among viper's bugloss
- P. fimbrialiscomes to l.
- " farinalisin stables, corn stores, &c.
- " glaucinalis ...in thatch, and at l.
- A. pinguinalis ...on walls of stables, houses, granaries, &c.
- " cuprealisoccurs in houses
- C. angustalis.....
- P. punicealis.....edges of woods, &c.
- " purpuralis(2?) flies by day ; rarely taken at light
- H. cespitalis.....in grassy places
- E. cingulalis.....on grassy hill-sides, &c.
- E. octomaculalis in woods
- A. nemoralis ...at Holme Bush, near Henfield, Sussex
- E. flammealis ...on sloping hills, and cliffs, near the sea, among fern ; very local [places
- D. literalisgenerally in dry
- N. ciliarisin fens, &c.
- S. punctalisamong Iris foetidissima
- C. lemnalisflies over duckweed-covered ponds, at dusk ; comes to l.
- P. stratiotalis ...flies at dusk, among water-plants ; comes to l.
- " nymphæalis... } rest among water-
" stagnalis } plants ; fly at dusk
- A. niveusat rest, on twigs, &c., in weedy ponds, and rivers, close to the water's edge, or flying slowly over the surface
- B. flavalisin chalk, and limestone districts, on the S. coast
- " hyalinalis.....in chalk, and limestone districts
- " verticalisamong nettle
- " lancealisin damp woods, or lanes, near
- " terrealisLynmouth, Conway
- " asinalisat light
- " urticalisamong nettle
- E. crocealisamong fleabane
- " verbascalis ... among Teucrium scorodonia
- " sambucalis ...among elder
- P. forficalisin gardens
- " margaritalis...fens, &c.
- " stramentalis...beaten from brake fern, and undergrowth, in woods, fens, &c. ; comes to l.
- S. sticticalisamong Artemisia ; at l. and fl.
- " palealis.....among wild carrot, and Peucedanum, on the S.E. coast
- " cinctalisin clover fields ; comes to l.

IMAGOS]

JULY

- S. alpinalison the tops of mountains, in Perthshire, &c.
 " lutealisin hedges
 " olivialisin hedges
 " prunalisin hedges
 L. pulveralis ...single specimens have occurred at Folkestone, Isle of Wight, and Ranworth
 S. ambigualis ...s. at sugar, and at rest. Many of the genus, which are mostly moss, and lichen-feeders, may be found at rest on walls, palings, &c.
 " basistrigalis...at rest, on oak trunks; s. at sugar; has occurred among birch, and alder, in Tilgate Forest, Sussex
 " Zelleribeaten from old willows, and hawthorns
 " ulmella.....on trunks of wych elm
 " cembraeon tree trunks, &c.
 " murana.....among heath
 " mercurella ...
 " crataegella ...
 " resineaon ash trunks; very local
 " phæoleuca ...
 " truncicolella...on fir trunks
 " atomalisamong heath
 " gracialis
 " alpina
 " pallidain fens, &c.
 P. cerusellus.....in grassy places, among shingle
 " alpinellus.....in sandy, grassy places, especially in fir woods; not a mountain species
 C. verellusamong grass, and moss
 " falselluscommon in England, more local in Scotland
 " dumetellus ...local
 " ericelluson moss, among heath; local
 " sylvellusin fens, &c.; local
 " hamellusin grassy places, among heath
 " pascuellus.....damp meadows, and moors; local; s. at sugar
 C. uliginosellus in fens; local
 " furcatellus ...a mountain species in Britain, not below 2,000 ft.
 " margaritellus damp, grassy places, in open woods, more especially in the Highlands
 " myellusRannoch, Braemar, &c.
 " pinetellus ...best obtained at night, by searching dry banks
 " latistriellus ...on coast sand-hills; local
 " perelluslocal
 " Warringtonellus on mosses and moors, and on the coast; very local
 " selasellusfens, and wet meadows
 " tristellusin damp, mossy places
 " fascinelinus...on the coast, near Yarmouth; at rest, on the sand
 " inquinatellus among alder bushes, and on heaths; s. at sugar
 " contaminellus dry pastures; rather local
 " geniculellus ...among thick grass
 " culmelluscommon in fields
 " hortuellus.....in grassy places
 " paludellus ...in the Norfolk fens
 C. cicatricellus ...in wet places
 " phragmitellus marshes, and fens
 S. forficellus.....weedy ditches, &c.
 " mucronellus...fens, &c.
 " gigantellus ...marshes, &c.
 A. lotellaon coast sand-hills; flies at dusk
 " farrellaon the coast
 I. carnella.....local
 M. cribrellaamong thistles, often on hills
 H. sinuellaBrighton, &c.
 " nimbellaamong Jasione montana, and thistles, and ragwort, on the coast
 " nebulellaamong Carduus nutans, &c.; very local
 " binævella.....local
 " senecionis, 2? [coasts
 N. achatinella ...on the S. and E.

IMAGOS]

JULY

- E. elutella in grocers' warehouses &c.; also in thatch
 " semirufa local
 " pinguis.....rests on ash trunks; comes to l.
 " cinerosella ...local
 C. bistrigalocal
 P. interpunctella in corn, seed, and grocers' warehouses, &c.
 N. genistella.....among furze; Isle of Wight, and New Forest
 G. canella..... Folkestone, Hastings, &c.
 P. betulellaamong birch, &c.
 " carbonariella among burnt heath, and birch
 " dilutella
 " subornatella...
 " obductella ...
 " ornatellalocal
 " abietellamay be beaten from young fir trees
 " roborellaamong oak
 P. palumbella ...among heath
 R. formosella ...at light
 " consociella ...s. at sugar
 " advenellaamong hawthorn
 " marmorea.....among old sloe bushes
 " suavellaamong sloe
 " tumidellaamong oak
 " rubrotribiella
 O. ahenella
 M. sociellanear beehives
 " anellaon the coast
 M. alveariella ...among beehives, to which the larva, which lives on the wax, is destructive
 H. prasinana ...woods
 " quercana.....woods; at sugar; and may be beaten from trees
 S. Revayana ...woods, &c.
 T. podanahedges, &c.
 " piceanawoods
 " crategana ...oak woods, in the S.
 " xylosteana ... woods
 " sorbianawoods
 " rosana
 " dumetana.....marshes, and fens
 " diversana.....Kent, Surrey, Essex
 T. cinnamomeana... Kent, Surrey, Hants, Essex, Norfolk, &c.
 " heparanahedges
 " ribeana.....hedges
 " corylanawoods
 " unifasciana ...hedges
 " semialbana ...on the chalk
 " costana.....fens, and marshes
 " viburnana ...boggy heaths, and moors
 " icteranadry banks
 " viridana
 " adjunctana ...
 " Branderiana Essex, Cambridge, Hants, &c.
 D. Grotiana.....among oak, in woods
 " gnomanawoods
 A. Gerningana...heaths, and moors
 CE. Pillieriana ...South coast
 L. Boscanaamong elm
 P. mixtana, h. ...moors
 " Caledoniana moors
 " aspersana.....dry banks, Yorks, &c.
 " Shepherdana fens
 " lipsiana.....Witherslack, Rannoch, &c.
 T. caudanawoods, and fens
 " contaminana hawthorn hedges, &c.
 D. lorquiniana ...fens
 " Lœflingiana...among oaks, in woods, and hedges
 " Holmiana ...hedges
 " Foscalkana ...maple hedges, &c.
 " Conwayana ...
 P. Lecheana.....woods
 D. Hartmanniana among willows
 " semifasciana among willows
 P. picanaon birch trunks
 " sororculana ... among birch, and willows
 " prælongana...among birch
 " ochroleucana among rose
 " sellanachalk districts
 " marginana ...damp woods, heaths, and fens
 " carbonana ...woods, and fens
 A. salicanaamong willow, and poplar

IMAGOS]

JULY

- S. *laricana*in larch woods
 " *ocellana*among alder
 " *neglectana* ...among willows
 " *incarnatana* ...among *Rosa spinosissima*, on the coast
 " *suffusana*hedges
 " *rosæcolana* ...in gardens, among roses
 " *roborana*woods
 P. *tripunctana* ...gardens, and hedges
 A. *Udmanniana* among bramble
 S. *achatana* among hawthorn, and sloe
 S. *euphorbiana*...S. coast
 " *bifasciana*.....among Scotch fir
 " *abscisana*at Folkestone, among *Inula*, and thistles
 " *littorana*banks, on the coast
 " *cespitana*on the coast, and other sandy districts
 " *conchana* ...meadows, & marshes
 " *lacunana*a smoky-black var., with lustrous lines, is found in the Norfolk fens, and also a small var.
 " *urticana*woods
 " *micana*marshes
 " *irriguana*grassy slopes of Scotch mountains
 " *Doubledayana*...Ranworth, and Horning fens
 M. *Schulziana* ...heaths, and mosses
 " *Ratzeburgiana* among spruce, and Scotch fir
 E. *mygindana* ...Northern heaths
 " *rubana*
 O. *antiquana* ...corn fields
 " *striana*.....dry banks, and rough pastures
 E. *fractifasciana* downs
 " *quadrana*Kent, Surrey, &c.
 C. *cinctana*Folkestone
 " *politana* ...heaths, &c.
 S. *nubilana*hawthorn hedges
 " *Peterana*dry banks
 " *subjectana* ...
 " *virgaureana* ...
 " *chrysanthæana* dry banks
 " *Wahlbomiana*
 " *pasivana*on the coast
 S. *abrasana*
 " *hybridana* ...among elm, and sloe
 " *penziana*
 " *Colquhounana* wild hills, on the Scotch, and Irish coast
 S. *ictericana*.....hay fields, and sand-hills
 B. *lanceolana* ...among rushes
 " *furfurana*local
 P. *unguicana* ...heaths
 " *biarcuana*.....among willows
 " *derasana*Southern woods
 " *Mitterpacheriana* oak woods
 G. *ramana*among birch
 " *misana*.....among willow; local
 " *nigromaculana* among ragwort
 " *campoliliana* among willow
 " *minutana*on poplar
 " *trimaculana*...among elm
 " *Penkleriana*...among nut, & alder
 " *geminana*.....moors, among *Vaccinium*
 " *ravulana*Kent, and Essex
 P. *Demarniana*...Southern woods
 H. *cruciana*among willow
 B. *angustioriana* garden hedges
 P. *bilunana*
 " *corticana*.....among oaks
 " *occultana*.....among young firs
 " *semifuscana*...among willows
 E. *bimaculana* ...woods
 " *cirsiana*in lanes
 " *Brunnichiana*...in waste places, among coltsfoot
 " *turbidana*Preston
 " *foenana*.....on the coast, and in fens, among *Artemisia vulgaris*
 " *nigrocostana* in lanes, among *Stachys* [mond, Yorks
 " *signitana*Witherslack, Rich-
 " *grandævana*...S. Shields, among coltsfoot, on ballast heaps; flies at dusk, and rests on the leaves
 " *trigeminana*.....fields, and dry banks among ragwort
 " *tetragonana*...among black briony
 " *populana*among willow
 " *obscurana* ...Darent
 O. *ulmana*Witherslack, Harrogate, Norfolk, Surrey, &c.

IMAGOS]

JULY

- S. spinianahawthorn hedges
 " ianthinana ...
 " rufilanaamong wild carrot
 C. ravulanaKent, and Essex
 " hyrciniana ...among spruce
 " ustomaculana N. of England, and
 " Scotland
 " nananaamong spruce
 P. mercuriana ...Northern hills, and
 " mountains
 R. Buolianaamong Scotch fir
 " pinicolana ...among Scotch fir
 " pinivorana ...among Scotch fir
 " sylvestrana ..Bournemouth, Kent
 C. grossanaamong beech
 E. nigricana, b. among peas
 S. dorsanarailway banks
 " coniferana .. among Scotch fir
 " Leplastrierana among wild cab-
 " bage, on the S.E. coast
 " corollanaamong aspen; local
 " internanaEastern counties,
 " &c., among furze [trefoils
 " composana ...among clover, and
 " redimitana ...among under-growth
 " regianaamong sycamore
 " roseticolana...among wild rose
 " orobanaDarlington, Scarboro'
 D. politanadry banks, among
 " yarrow; Norfolk, Kent
 " alpinanaat river sides, among
 " tansy
 " Petiverana ...among yarrow
 " saturnanaIsle of Wight, and
 " grassy places in the S., and
 " Scotland
 " acuminatana railway banks
 " herbosana, b. Scotland, and N. of
 " England [vulgaris
 " simpliciana ... among Artemisia
 " tanacetana ...Exeter
 " consortana ...meadows
 C. ulicetanaamong furze
 " Julianaamong oak
 " microgrammana among rest harrow
 " hypericana ...among Hypericum
 " parvulanaIsle of Wight
 " maritimana ...coast of Essex, and
 " Kent; among Artemisia mari-
 " tima
 C. canaamong thistles
 " fulvanachalky districts, among
 " Centaurea scabiosa
 " Hohenwarthiana among thistles
 " Scopoliana ... among Centaurea
 " nigra
 " cœcimaculana Mickleham
 " æmulanaSouthend
 " expallidana ...dry banks
 " citranaLancashire, and S.
 " coast
 T. mediananear London, Folke-
 " stone, Fulborne
 S. vibranaamong thistles; very
 " local
 C. scintilulana ...marshes
 E. dubitana Farnham, Bristol,
 " Scotland
 " atricapitana...among ragwort
 " sodaliana among Rhamnus
 " catharticus
 " ambiguana ... among Rhamnus
 " frangula
 " Degreyana ...Norfolk
 " angustana ...on heaths, &c.
 " vectisanaFleetwood, and Isle
 " of Wight, among sea-plantain
 " rupicolana ...marshes
 " flaviciliana ...S. downs
 " subroseana ...woods, in the S.
 " implicitana ...woods, in the S.
 " anthemidana, 2. chalk districts
 " pallidanacliffs
 X. Zoegana among scabious,
 " and knapweed
 " hamanaamong thistles
 C. tesserana, b. on the coast, &c.
 " rutilanaamong juniper
 A. sub-beaumanniana in chalk-pits,
 " and dry fields
 " zephyrana ...S. coast
 " badianarailway banks, &c.,
 " among burdock
 " cnicanaamong thistles
 " dipoltanaon chalk, in the S.
 " Smeathmanniana London district,
 " Darlington
 " stramineana...chalky places
 " alternanaFolkestone
 " inopianaamong Inula

IMAGOS]

JULY

- A. osseanamarshes
 P. betulina (anicanella) Hampstead
 radiella, e. ...
 P. Verhueliella.....flies in the sunshine,
 among hartstongue, and Asplen-
 ium
 X. argentimaculella
 P. Birdellain pasture fields,
 among grass
 " bisontella.....in heathy places
 " vaculellafrequents houses
 S. choragella ...Cumberland
 " picarellaManchester, and
 Newcastle
 " graneliaabout granaries, and
 flour mills
 " cloacella
 " arcella
 T. imellascarce, and local ;
 found where the fields are
 manured where the furrrier's refuse
 " ferruginella ...
 " rusticella ...
 " tapetella.....common, in houses
 " albipunctella Witherslack, &c.
 " confusella.....Howth, Hartlepool
 " caprimulgella...Hackney, Hyde
 Park
 " misellain outhouses
 " pelliella ...common, in houses,
 its larva feeding on cloth, fur, &c.
 " fuscipunctella
 " pallescentella in warehouses, and
 poulterer's shops
 " ganomella ...woods, and hedges
 " merdella ...Darlington, Liverpool,
 Manchester
 " biseliellain houses, and mu-
 seums, its larva feeding on hair,
 fur, and feathers
 " simpliciella ...Mickleham, Dover
 " nigripunctella Yorks, &c.
 " semifulvella ..
 " sub-ammanella has occurred at
 Tor Wood, Stirling
 " perochraceella Rannoch
 L. luzella Cambs]
 N. metaxella ...Witherslack, Yorks,
 A. viridellain hedges, and
 among oak
- N. Schiffermillerella Southend,
 Darent
 " minimella ...
 S. comptellaamong sloe
 " cæsiellaamong sloe
 " lutarellaon hedges
 S. cratægella.....on hedges
 Y. vigintipunctella, e. Guildford, &c.
 " plumbella..... among Euonymus
 europæus
 " irrorellanear Wandsworth
 " padella.....among hawthorn
 " cognatella ... among Euonymus
 europæus
 " evonymella ...among Prunus padus
 P. Curtisellaamong ash
 P. xylostella.....among Cruciferæ
 " porrectella ...in gardens
 " annulatella...Howth, Castle Eden,
 Scotland, Portland, &c.
 " Dalellaon moors
 H. sequellaon trunks of sycam-
 ore and maple
 " vittellaon trunks of elm,
 and beech
 Y. lucellaamong young oaks
 " horridella.....New Forest
 " asperella, e. formerly at Glanville's
 Wotton
 H. scabrella.....
 " nemorella ...among honeysuckle
 " harpellaamong honeysuckle
 O. sparganiella in fens, among Spar-
 ganium
 P. quercellaamong oak
 E. Allisellacoasts of Cheshire,
 Lancashire, Norfolk, &c., among
 Artemisia vulgaris
 D. costosella ...among furze
 " liturellaamong Centaurea
 " assimilella ...among broom
 " nanatellaamong thistle
 " atomellaamong broom
 " arenella
 " propinquella, h.
 " subpropinquella, h.
 " Alstræmeriella, h. among Conium
 maculatum
 " ciniflonella, h. Rannoch
 " vaccinnella.....Lytham

IMAGOS]

JULY

- D. hypericella ...among Hypericum
 " conterminella among willows
 " anglicellaamong Anglica syl-
 vestris
 " carduella
 " ocellellaamong willow
 " applanella, h.
 " pimpinella ...
 " bipunctosella, e. New Forest, Isle
 of Wight
 " albipunctella, h.
 " pulcherimella among Bunium
 flexuosum
 " cnicella.....
 " Douglasella ...Fleetwood, Redcar,
 Folkestone, Isle of Wight
 " WeirellaPreston, Lewisham,
 Lewes
 " ultimellamarshes, &c.
 P. gibbosella ...
 G. cinerella
 " rufescensella...marshes, &c.
 " gerronella ...marshes, &c.
 " vilellaGravesend, Worthing,
 Folkestone
 " malvellain gardens
 " populella
 " nigra.....
 " temerella.....Lytham
 " lentiginosella
 " ericetellamoors, and heaths
 " mulinella.....among furze
 " palustrella ...in fens
 " sororculella ...among willow
 " peliella.....Manchester, West
 Wickham
 " alacellaLeatherhead
 " terella
 " desertella.....sand-hills, on the
 coast
 " expositella ...Darlington, Skid-
 dow, Pentlands, &c.
 " acuminatella
 " artemisiella...coast sand-hills,
 Manchester, &c.
 " albipalpella ...
 " arundinetella Hackney, Cambs
 " senectella ...in lanes, &c.
 " mundella.....coast sands
 " similella
- G. affinella
 " boreellaScotland
 " galbanella ...Rannoch
 " basaltinella ...Cambs, Addington
 " domesticella
 " rhombella among crab, in
 hedges, &c.
 " Lyellella.....Castle Eden, With-
 erslack, New Forest, &c.
 " vulgellahedges, &c.
 " fugitivella ...on trunks of elm,
 and beech
 " distinctella ...on the coast, and in
 sandy places
 " maculella
 " fraternella ...
 " muscosella ...
 " maculiferella among Cerastium
 semidecandrum
 " leucomelanella Howth, Isle of
 Man, Lizard
 " Hubnerella ...
 " marmorella ...coast sand-hills
 " instabilella ...on the coast
 " ocellatella ...Preston, Folkestone,
 Lizard; comes to sugar
 " atriplicella South Shields,
 Scarboro'
 " sequacella ...
 " leucatella.....
 " albicapitella...
 " nanella.....
 " Mouffetella ...
 " dodecellaamong fir trees
 " tenebrella
 " ligulellaamong Lotus major,
 on railway banks, &c.
 " vorticellarailway banks, &c.
 " tæniolella.....
 " Sircomella ...railway banks, &c.
 " coronilella ...Mickleham
 " anthyllidella railway banks, and
 coast sand-hills
 " atrellaamong Hypericum
 " bifractella ...Folkestone, Mickle-
 ham
 " lucidellain marshes
 " lutulentella ...near Bristol, Dart-
 ford Heath, &c.
 " gemmella.....Birkenhead, Bristol,
 Manchester

IMAGOS]

JULY

- G. ericinellaheaths
 " inopella
 " subocellella ...
 " osseellaflies at dusk, among grass
 " Knaggsiella ...
 " umbrosella ...
 " sangiella
 " pinguinella ...
 P. lappella
 " Metzneriella
 " carlinella
 " neuropterella Deal, Mickleham
 C. cytisella
 A. spartiella.....among furze
 " genistella.....Morecombe, Alkam, Penbury
 M. marginella ...Witherslack, New-castle, Sanderstead
 " juniperella .. Perthshire
 N. verbascella .. near Norwich, among Verbascum pulverulentum
 " Durdhamella
 S. parenthesesella
 P. bicastella.....on moors, &c.
 H. Christierninella, b. Castle Eden, Darenth, Greenhithe, Seven-oaks
 D. sulphurella ...
 " oliviellaDarenth, Tenterden, Lewes, &c.
 CE. flavimaculella among Angelica sylvestris
 " trisignella ...
 " stipellaPreston, Staleybridge, Lake District, Yorks, Rannoch
 " formosella ...Wanstead
 " lunarella
 " lambdella.....Charlton, Bristol
 " subochreella Cambs, Lewes, &c.
 " fuscacentella
 " pseudo-spretella common in houses
 CE. Kindermanninella, in houses
 E. fenestrella ...is found all the year round, in houses, but is most numerous about this season
 B. grandipennella among furze
 " fusco-æneella
 " senescentella
 B. fuscocuprella ...on railway banks, &c.
 " cicadellahas occurred at Brandon
 " torquatella ...Scotland
 F. Leuwenhoekella
 " Latreillella ...
 A. granitella.....
 G. Thrasionella...among rushes
 " cladiellaamong rushes, in fens, &c.
 " Haworthella
 " equitella, b. among Sedum acre
 D. ocnerosomella among Echium vulgare; very local
 A. ephippella ...local
 " nitidellaamong hawthorn
 " albistriella ...among sloe
 " conjugellaamong wild mountain ash
 " semifuscella...in hedges, among sloe, and hawthorn
 " mendicella ...among sloe
 " glaucinella ...among oak
 " retinellaamong birch
 " abdominella, b. on juniper, on the coast, &c.
 " dilectella
 " Andereggiella Witherslack
 " curvellaamong wild apple
 " sorbiellaamong wild mountain ash
 " pygmaella.....among willow
 " Goedartella ...among alder, and birch
 " Brochella.....among alder, and birch
 " aurentella Sanderstead, Mickleham, Tenterden
 C. farinatella ...among Scotch fir
 " Gysselinella...Rannoch
 O. pinariella, 2. among Scotch fir
 Z. saxifrageBraemar
 G. stigmatella ...among willow, &c.
 " syringella.....in gardens, among lilac
 " omisella, e.
 " auroguttella...
 " Kollariella ...
 C. Brogniartella

IMAGOS]

JULY

- O. torquilella ...among sloe
 Loganella
 C. Fabriciella ...on railway banks
 deauratella ...
 alcyonipennella among Centaurea
 nigra, in sheltered places
 Frischella ... Portland, Isle of
 Wight, and Dorset coast
 Wockeella ...
 ochreella
 salicornella ...Fleetwood
 lixellaon the coast, among
 grass
 vibicella
 conspicuellla
 pyrrhulipennella
 albicostella ...among furze
 vulnerariella
 anatiipennella
 palliatella ...
 ibipennella ...
 currucipennella among willow
 niveicostella...
 discordella ..among Lotus major
 genistæcolella among Genista
 anglica
 saturatella ...among broom
 onosmella ...among Echium vul-
 gare
 inflatella ... among Silene inflata
 therinella.....among thistles
 troglodytella among Eupatorium
 cannabinum
 lineolellaon Ballota nigra
 murinipennella among Luzula
 sylvatica
 cæspitiellla...among rushes
 annulatella (Tengstromella) among
 Chenopodium
 salinella
 apicella (cacuminatella) fens, and
 marshes
 argentulella..... among Achillea
 millefolium
 virgaureella ...
 hemerobiella
 juncicolella ...among heath
 laricellaamong larch
 albitarsella ... among Glechoma
 hederacea
 C. nigricella.....among hawthorn
 fusedinella...
 orbitella
 vitisella
 viminetella ...among willow
 solitariella among Stellaria
 holostea
 lutipennella...among oak
 artemisiolella among Artemisia
 badiipennella among hawthorn
 limosipennella
 chalcogrammella among Ceras-
 tium arvense
 melilotella .. railway banks, &c.
 artemisiella ...
 S. pedella.....near Brandon, Suffolk
 C. Druriella
 orichalcella, b.
 Lienigiella ...in fens, among reed
 B. præangustella on poplars, and
 sallows
 pinicolella ...among Scotch fir
 O. v.-flavella ...in wine vaults, and
 cellars
 C. insecurella, e. at Stoa's Nest, near
 Croydon
 Illigerella.....
 chærophyllella
 L. paludicolella
 lacteella
 miscella
 conturbatella
 Stephensiella
 ochraceella ...among Epilobium
 phragmitella among Typha lati-
 folia
 atra (Hellerella) among hawthorn
 rhamniella ...among buckthorn
 C. Linneella.....
 bimaculella ...Black Park, and
 Leith Hill
 H. Roesella.....formerly near London
 A. profugella ...Witherslack, Dar-
 lington, and Kemsing, Kent
 æratella
 E. Gleichenella
 magnificella...
 apicipunctella
 luticomella ...
 flavicomella...

IMAGOS]

JULY

- E. Kilmunella ...moors, marshes, and
bogs, among coarse grass
" stabilella
" Gregsonella...
" nigrella
" perplexella ...
" Paludum
" humiliella ...
" subobscurella
" zonariella.....
" cingilella
" adscietella ...
" cerussella.....among reeds, in
marshes, &c.
" rhyncosporella
" eleochariella
" biatomella ...
" serricornella
" triatomella ...in chalk pits
" dispunctella...
" collitella
" pollinariella
L. corylellaamong nut
" spinicoella ...among sloe
" spinolella.....
" quercifoliella among oak
" scopariella ...among broom
" ulicoellaamong furze
" alnifoliella ...among alder
" trifasciella ...among honeysuckle
P. suffusella.....among willow
" salignella.....
C. scitella
" Wailesella ...among Genista
O. salaciellaamong sorrel
" crepusculella
" spatulella..... [lium
B. maritimella ...among Aster tripo-
" frangulella ...among buckthorn
N. quinqueella ...
" poteriella
" angulifasciella
N. centifoliella...
T. immundella...
B. quadrimaculella
A. Bennetii... ..Sheppey, and the
Essex coast
P. rhododactylus among rose
" Bertrami, b.
" ochrodactylus among tansy
" isodactylus ...in marshes, among
Senecio aquaticus
" Zetterstedtii ... Darlington, Scar-
boro', Lynmouth
" acanthodactylus on heaths
" lætuson the "Breck" sand
of Norfolk and Suffolk
" punctidactylus
" parvidactylus
" hieracii.....
" pilosellæCambs, Mickleham
" phæodactylus Cambs, Mickleham
" serotinus
" plagiodyctylus among Scabiosa
columbaria
" zophodactylus
" lithodactylus among Inula dysen-
terica
" Liengianus ... among Artemisia
vulgaris ; Ventnor, Deal
" tephrodactylus
" osteodactylus Witherslack, Scar-
boro'
" microdactylus among Eupatorium
cannabinum
" Paludum
" brachydactylus Carlisle, Norfolk
" galactodactylus among burdock
" spilodactylus Isle of Wight
" baliodactylus
" tetradactylus among thyme
" pentadactylus among Convolvulus
sepium, and C. arvensis
" dichrodactylus

AUGUST

OVA]

Those who wish for eggs of Butterflies, for purposes of preservation, &c., will find many species obtainable this month, while if the opportunity, now presented, be lost, very few will be found in succeeding months of the year. Where the food-plant of the species sought for is abundant, and the Imago is known to frequent the locality, much time may be sometimes saved by collecting conspicuous sprays of the plant into a bag, and looking for the eggs afterwards, at home, with the aid of a magnifying glass.

- | | |
|---|---|
| L. sinapis, s.on Vicia, cracca, and
Orob. tuberosus; long, stand-
ing on end, curved, yellow-white | T. prunion sloe twigs |
| P. Brassicæon cabbage, &c.; in
groups; conical, ridged, yellow | " betulæto Mar., on twigs of
sloe |
| " rapæon Cruciferæ, migno-
nette, and other garden plants | L. Ægonon Ornithopus per-
pusillus; white. Do not hatch
until about March |
| " napion Cruciferæ | " agestison Erodium circu-
tarium |
| " Daplidiceon wild mignonette,
and weld | " Alexison Lotus cornicu-
latus |
| C. Edusa, s.on white clover,
lucerne, &c. | " Corydonon Hippocrepis co-
mosa; on chalk, and sandstone
downs, and hills |
| A. Aglaiaon dog, and sweet
violet, and wild heartsease | " argioluson ivy; on the fl.-
stalks; white |
| " Niobeon dog, and sweet
violet | H. commato Mar., on trefoil,
and other Leguminosæ |
| " adippeon dog, and sweet
violet | L. salicison poplar, willow,
&c.; covered with white
down |
| " Latonaon violet, and hearts-
ease | " disparon the trunks of
sloe, hawthorn, and various
fruit trees; in a conical heap,
covered with down |
| E. Medeaon moorland poa,
and other grasses; large, nearly
globular, at first greenish-yellow,
afterwards pinkish-grey, speck-
led with claret-brown | " monachato Mar., on oak,
beech, fir, birch, apple, &c. |
| S. Semele, b.on Triticum repens | B. neustriaon hawthorn, sloe,
fruit trees; in batches, round
twigs, and branches |
| T. quercus .....on oak twigs | |
| " w-albumon wych elm, also
elm; on the twigs; whitish | |

OVA]

AUGUST

- B. *castrensis*.....on *Artemisia maritima*, *Daucus maritimus*, &c.
 E. *vespertina* ...on nut
 " *apiciaria* to April, on poplar, willow, sallow
 C. *elinguaria* ...to Feb., on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish-slate colour
 F. *pinetaria*on bilberry
 S. *sacraria*on dock, and chamomile; at first pale greenish-yellow, afterwards bright red
 A. *citraria*.....on wild carrot, trefoil; &c.; generally near the coast
 L. *olivata*, e. ...on *Galium Mollugo*; rather small, oval, plump; at first pale straw, then red, and at last a pale livid hue
 E. *unifasciata* ...on *Odontites rubra*
 E. *subciliata*.....to April, on maple; at footstalk of leaf
 M. *rubiginata* ...on alder; large
 " *montanata* ...on primrose
 P. *vitalbata*on *Clematis vitalba*
 S. *vetulata*on buckthorn
 C. *russata*on strawberry, birch, hawthorn, sallow, &c.; singly, large, flattish, dingy yellow
 " *immanata*.....probably on alder, and other trees, and strawberry, bilberry, &c.; large, flat, yellow
 " *prunata*on currant, gooseberry, sloe, &c.; on the bark, large
 " *testata*to April, on heath, birch, sallow, poplar, &c.; singly, large
 " *populata*on bilberry, whortleberry, poplar; globular, large, yellow
 " *fulvata*on dog rose; rose-pink, large
 " *pyraliata*to Mar., on *Galium*, and hawthorn; large
 " *dotata*to April, on black, and red currant; large
 E. *lineolata*on *Galium verum*, on the coast; in clusters, oval; standing on the smaller end; yellow, changing to pale brown
 T. *chærophyllata* on *Anthriscus sylvestris*, and *Bunium flexuosum*
 X. *lithoxylea* ...among grass; small, globular, pale yellow
 P. *captiuncula* ...on —? At Darlington. Globular, pale straw colour
 C. *Morpheus* ...on dock, teasel, &c.
 " *alsines*on chickweed, &c.
 " *cubicularis* ...on grasses, pulse, and grain
 A. *Puta*on dandelion, lettuce, carrot, &c.
 N. *depuncta* ...on sorrel, and other low plants; globular, slightly flattened above, and ribbed, pale straw colour, in the centre a brown spot, and encircled at some distance with brown
 " *xanthographa* on plantain, &c.
 C. *xerampelina*, e. on ash; probably in the chinks of the twigs, and the buds, &c.; round, smooth, dirty-white
 T. *subtusa*.....to Mar., on poplar; upon the twigs
 C. *trapezina*on oak, and many other trees
 P. *chi*to Mar., on dock, hawthorn, sallow, and probably lettuce, sow thistle, tea tree, &c.; purplish-brown
 " *xanthomista*, e. on *Plantago maritima*, in exposed places, on the coast (notably the Isle of Man); and also, probably, on campion, violet, harebell, &c.
 E. *viminalis*on sallow
 M. *typica*on dock, low plants, &c.; in clusters upon the leaves
 C. *sponsa*on oak; upon the twigs
 H. *proboscidalis* on nettle; rather large, pale yellow
 C. *pinetellus* ...amongst moss, on dry banks; oblong, oval, whitish

LARVÆ]

AUGUST

We now begin to find many of our larvæ commencing a life of feeding, which, on and off, will not terminate until May, or June, of the following year. These deliberate eaters appear in the lists with the contraction "h.," signifying that they hibernate. Most of these are now quite small, and few will repay the trouble and risk of keeping all the winter; for even with the food-plant in a growing state, large numbers of hibernating larvæ always die in confinement; they are, therefore, generally better left until the spring, unless special reasons exist for trying to rear them. Sometimes part of a brood, in confinement, will complete its change to the pupa, or even the perfect state, in the autumn, while the other part will not do so until the spring.

- P. Machaon Peucedanum palustre, and other Umbelliferæ; in fens
 P. cratægi, h. ...hawthorn, sloe, and orchard trees
 A. Paphia, h. ...dog, and sweet violet; in a slight web, on, or near the ground
 " Aglaia, h.dog, and sweet violet, and wild heartsease
 " Niobe, h.dog, and sweet violet, and wild heartsease
 " adippe, h.dog, and sweet violet
 " Latonadog, and sweet violet, and wild heartsease
 M. Artemis, h.scabious, plantain, woodbine; will also eat foxglove, wood sage, &c.
 " Athalia, h. ...narrow-leaved plantain, foxglove, wild germander
 V. c.-albumnettle, elm, hop, sloe, currant
 " urticanettle
 L. sibylla, h. ...honeysuckle
 A. Iris, h.sallow, poplar
 A. Galatea, h. ...timothy, and other grasses
 E. Epiphron, h. Poa annua, Festuca ovina, and small rushes; in mountain bogs
 S. Semele, h. ...quaking grass, couch grass, &c.; on dry hill-sides, and on sand-hills along the sea-shore; feeds by night; hides at the r., and under clods by day
 " Ianira, h.meadow grasses [&c.
 " Tithonus, h. annual meadow grass,
 " hyperanthus, h. annual meadow, millet, and other grasses
 C. Davus, h.Rhynchospora alba
 " Pamphilus ...grasses
 P. Phloas dock, ragwort, sorrel
 L. BoeticaCollutea arborescens
 " Alexis, 2.rest harrow, clover, trefoil, &c.
 " Adonis, b., 2. Hippocrepis comosa, &c.
 N. Lucinaprimrose, and cowslip; eats small holes in the leaves
 H. linea, h.grasses
 S. ocellatuswillow, saw, poplar, apple; will also eat sloe, peach, almond, &c.
 " populipoplar, saw, willow; will also eat birch, laurel, laurustinus
 " tiliæelm, lime, beech
 D. euphorbiæ ...Euphorbia paralis, and E. cyparissias. Feeds exposed
 " galiiGalium verum, and G. elatum. In their native haunts, on the sea shore, they feed from the beginning of this month, till the end of Oct. They seem to prefer the scrubby plants; are nearly always found in pairs; and may be traced from the frass, on the sand-hills. They vary very much in appearance
 C. celerio Galium, vine
 " porcellusGalium; also willow herb, and vine
 " elpenorGalium palustre, G. uliginosum, and other Galiums; also willow herb, fuschia, vine

LARVÆ]

AUGUST

- M. stellatarum.....Galium Mollugo,
growing on old walls, exposed
to the sun
" fuciformis.....Lychnis, scabious,
honeysuckle, Galium, &c.
" bombylifformis Scabiosa
S. muscaformis in stems of Statice
armeria
Z. æsculi, h.in the wood of ash,
elm, pear, horse chesnut; s.
hawthorn, lime, box. The
larvæ are generally in the high-
est branches of the tallest trees
H. hectus, h. ...in r. of brake fern
" lupulinus, h. in r. of dead nettles,
&c.
" velleda, h. ...in r. of brake fern
" humuli, h. ...in r. of various plants,
including Humulus (hop)
L. asellusoak, beech, poplar,
&c.
Z. nubigena, h. thyme
" meliloti, h. ...Lotus corniculatus,
vetches, &c.; partial to chalky
soils
" trifolii, h.trefoil, vetch
" loniceræ, h. ...clover, grasses
" filipendulæ, h. Lotus corniculatus,
&c.
L. sericea, h. ...lichens
C. miniata, h. lichen, on oak (Lichen
caninus); also withered willow,
oak, alder
L. mesomella, h. lichens; will also
eat willow, and heath
" lurideola, h.lichens
" complana, h. lichens, on sloe, and
fir
" griseola, h. ...lichens, on poplar;
Lichen caninus the supposed
proper food; will also eat
withered willow, &c.
" stramineola (var.) h. lichens, on sloe,
oak, willow
L. rubricollis ...lichens, on larch,
&c.; may be beaten from the
tree
E. cribrum, h. ...heath, bilberry
C. dominula, h. Cynoglossum offici-
nale, &c.; on hilly places
C. plantaginis, h. violets, plantain,
&c.
" caia, h.various plants, and
bushes
" villica, h.chickweed, &c.
A. fuliginosa, 2. dock, nettle, plan-
tain, grasses, &c.
" mendicasloe, plantain, &c.
" lubricepeda ...nettle, plantain, &c.
" memthrastris ...nettle, and various
plants, and bushes
" urticaewillow herb, and
low plants; in damp places
L. salicis, h.poplar, willow, oak,
&c.
O. pudibunda ...hop, beech, haw-
thorn, nut, oak, &c.
" cœnosareed, and carex
" gonostigma, h. oak, nut, haw-
thorn, sloe, bramble, willow,
sallow, beech, &c. In con-
finement this species may, by
careful feeding on willow, or
sallow, be often caused to pu-
pate in the autumn, and even
emerge
D. corylibeech, nut, birch,
alder, oak, willow, ash, &c.
L. ilicifoliawhortleberry, willow
S. carpinisloe, bramble, heath,
apple, willow, hawthorn, mea-
dow sweet, &c.; generally gre-
garious; may be s. found in
hedges
E. advenaria ...dogwood; will also
eat wild rose [aspen
E. dolobrararia ...oak, beech, birch,
S. lunariasloe, oak, nut, elm,
ash, hawthorn
O. bidentata.....oak, willow, nut, ivy,
ash, sloe, &c.
E. alniaria.....alder, birch, willow,
beech, &c.
" tiliariaoak, willow, birch,
alder, &c.
" angulariaoak, birch, beech,
&c.
A. betulariaoak, elm, hawthorn,
birch, beech, alder, mountain
ash, rose, ivy

LARVÆ]

AUGUST

- H. abruptaria s. lilac, rose, privet
 B. consortaria ...oak
 T. consonaria ...beech, oak, birch
 " crepuscularia larch, willow, poplar,
 " elm, birch, alder, &c.
 " extersaria, e...birch, beech, oak
 " punctulata ...birch, alder
 N. viridatahawthorn, bramble
 P. baiularia, h.... oak. A second
 brood will s. appear in confine-
 E. punctaria.....oak [ment
 " trilinearia..... beech; generally
 " dwarf, and pollard trees
 " omicronaria...maple; s. beech
 " orbicularia ...sallow, alder
 " pendularia ...birch
 H. auroraria, h. plantain
 A. luteata.....maple
 " sylvataalder
 " Blomeraria ...wyth elm, in, or
 near hilly woods; remains on
 the under-side of the leaf
 V. cambricaria...mountain ash
 A. rubricata, h. —? will eat knot-
 grass, Lotus corniculatus, Medi-
 cago lupulina, Thalictrum
 minus, and the smaller tri-
 foliums
 " scutulata, h. Anthriscus sylvestris,
 fl., and dandelion, withered;
 will also eat knotgrass
 " bisetata, h. ...dandelion; will also
 eat knotgrass, and withered
 bramble
 " trigeminata, h. some low plant?
 will eat knotgrass
 " contiguaria, h. Empetrium ni-
 grum; will also eat hawthorn
 buds, and knotgrass
 " rusticata, h. hawthorn; will also
 eat ivy, lilac, and withered
 bramble, and knotgrass; very
 local
 " interjectaria, h. dandelion, scarlet
 pimpernel (withered)
 " osseata, h. ...dandelion, &c.
 " holosericata, h. sun cistus, with-
 ered; will also eat knotgrass
 " circellata—? will eat knot-
 grass
 A. ornata, s., h. thyme, marjorum;
 will eat mint
 " promutata, h. Achillea millefo-
 lium, Artemisia vulgaris, Poten-
 tillia, reptans
 " straminata, h, —? will eat knot-
 grass
 " immutata, h. some marsh plant;
 will also eat knotgrass
 " remutata, h. low plants? will
 eat knotgrass [knotgrass
 " fumata, h. ...heath; will also eat
 " strigilata, h. Clematis vitalba,
 Stachys sylvatica, &c.
 " emutaria, h...Triticum repens;
 will also eat Medicago lupulina,
 Lotus corniculatus, Chenopo-
 dium, mint, and knotgrass
 " inornatalow plants; also, it
 is said, poplar, and willow
 " degeneraria, h. —? will eat
 knotgrass, bramble, Cerastium,
 Veronica
 " emarginata ...convolvulus, Galium
 C. pusaria..... oak, nut, alder,
 birch, willow, &c.
 C. temeratasloe, & wild cherry,
 and buckthorn?
 " taminatawild cherry, willow?
 buckthorn?
 N. pulveraria ...sallow, nut, privet
 S. belgeria, h. ...heath
 F. atomariaCentaurea, trefoils,
 &c.
 " piniaria Scotch fir, and
 larch; on the high branches
 " conspicuata ...broom
 M. euphorbiata...Euphorbia cypar-
 issias
 L. purpuraria?...dock, Polygonum
 A. strigillaria, h. heath, broom
 L. adustataspindle; rests along
 the stems
 L. pectinitaria alder, Galium
 Mollugo, and G. sexatile
 E. affinitataSilene, and Lychnis,
 seeds
 " alchemillata...Galeopsis, Silene,
 Lychnis
 " albulatayellow rattle, seeds

LARVÆ

AUGUST

- E. teneata*?has been obtained by beating holly
E. linariatain fl., and seed-vessels of yellow toadflax
 „ *centaureata* ...fl., and seeds of ragwort, golden rod, Angelica, yarrow, *Eupatorium cannabinum*, *Pimpinellæ*, &c.
 „ *succenturiata*, e. *Achillea millefolium*, *Artemisia*, and *Valerian officinalis*, seeds
 „ *subumbrata* ...*Gentiana*, *Campanula*, and other fl. ; in, and near beech woods
 „ *plumbeolata* *Melanpyrum pratense*, fl.
 „ *isogrammata* *Clematis vitalba*, fl. -buds
 „ *castigata*golden rod, heath, nettle, *Angelica sylvestris*, &c.
 „ *virgaureata*golden rod, fl.
 „ *fraxinata*ash ; will eat *laurotinus*, fl.
 „ *innotata* (?) e. *Artemisia campestris*, at Wallasy
 „ *nanata*heath, fl.
 „ *subnotata**Atriplex*, and *Chenopodium*, fl., and seeds
 „ *campanulata* seed capsules or *Campanula trachelium*, and other *Campanulæ*
 „ *minutata* heath, fl., and scabious ; s. a cannibal
 „ *togata*, e.spruce, in the buds, and shoots ; and, it is said, on the seeds of the Scotch fir
 „ *coronata* fl. of *Clematis vitalba*, wormwood, bramble, *Eupatorium cannabinum*, golden rod, wild angelica, &c.
C. sparsata*Lysimachia vulgaris*, fl., and leaves
L. hexapterata ...sallow, poplar
 „ *viretata*privet, and *Actæa spicata*
 „ *lobulata*honesuckle, willow, willow
T. juniperata ...juniper
Y. impluviata ... alder, willow ; in curled-up leaves
M. ocellata*Galium*
 „ *albicillata*bramble, raspberry
M. hastatabirch, *Myrica gale* ; within spun-up leaves
 „ *tristata**Galium Mollugo*
 „ *procellata* ...*Clematis vitalba*
 „ *tersata*, e. ...*Clematis vitalba*
 „ *unangulata* ...chickweed
A. sinuata*Galium verum*
 „ *rubidata**Galium*
C. unidentaria, b. *Galium* ; will also eat *Asperula odorata*
 „ *quadrifasciaria* hawthorn, white dead nettle, knapweed, and low plants
C. fluviata *Polygonum persicaria* ; will also eat groundsel, &c.
P. lignata, b. ...*Galium palustre*, &c.
C. psitticata oak, lime, apple, rose ; probably also birch, hawthorn, willow
 „ *miata* oak, alder, birch, poplar, willow
 „ *picata* chickweed ; rests along the stems
 „ *corylata*sloe, lime, nut
 „ *sagittata**Thalictrum flavum*, seeds, and withered leaves ; in confinement will eat other species of *Thalictrum*
P. comitata*Chenopodium*
E. palumbaria, h. broom
C. obliquariabroom
P. lacertulabirch ; between united leaves
D. bicuspisalder, beech, birch
 „ *furcula* willow, willow, poplar ; often rests on decayed leaves
 „ *bifida*poplars
 „ *vinula*, b.willows, willow, poplars
S. fagibeech, oak, birch, nut
P. bucephala ...elm, oak, lime, beech, willow, nut, &c.
C. curtulapoplars, willow ; webbed in the leaves
G. crenatapoplar
N. cucullina ...maple, sycamore

LARVÆ

AUGUST

- N. dromedarius, e. birch, alder, nut
 " tritophusbirch, poplars
 " trepida.....oak; tightly grips
 its food
 " Chaoniaoak
 " Dodoneaoak, birch
 T. derasabramble, hawthorn
 " batisbramble, raspberry
 C. duplarisbirch; between
 united leaves
 " or poplars; between
 leaves
 " ocularispoplars
 D. Orionoak, birch
 A. tridens.....hawthorn, sloe, rose,
 willow, sallow, mountain ash,
 &c.
 " psi.....hawthorn, poplar,
 pear, elm, lime, &c.
 " leporinabirch, poplar, alder,
 sallow
 " acerissycamore, horse
 chestnut, maple, birch; s. oak;
 often on the loftiest branches;
 clings closely to the leaf
 " megacephala poplar
 " strigosahawthorn; especially
 in chalky districts
 " alni hawthorn, alder,
 willow, oak, lime, rose, elm,
 nut, beech, the chestnuts, birch,
 sycamore, poplar, sallow, bram-
 ble. Should be looked for, as
 it is probably difficult to dis-
 lodge, by beating. Has been
 found at rest on a leaf, palings,
 &c.
 " ligustri.....ash, privet; seems
 to prefer shaded trees
 " rumicis.....bramble, plantain,
 knotgrass, and other low plants
 " menyanthidis Menyanthes trifo-
 liata, heath, bramble, sallow,
 sweet gale
 " myricæ.....Myrica gale, sallow,
 birch, heath? thistle?
 S. venosaGlyceria aquatica
 L. obsoletacommon reed; con-
 cealed, by day, in hollow
 stems
- L. littoralis, h. ... *Ammophila arun-*
dinacea, on the coast; burrows
 seven, or eight inches in the
 sand. Will also eat *Carex*
 " comma.....*Dactylis glomerata*,
 and other grass; also sorrel
 " phragmitidis, h. common reed;
 in the young stems
 N. typhæ in the stems of
 Typha latifolia
 G. flavago.....inside stems of
 Lappa, thistles, elder, foxglove,
 &c., feeding on the pith
 A. putrislow plants [&c.
 X. hepatica, h. grasses, chickweed,
 D. pinastridock, sorrel, &c.
 X. conspicillaris *Lotus corniculatus*,
 and other low plants
 L. exiguaplantain
 N. saponaria ...*Silene*, *Lychnis*, and
 other low plants
 M. albicollis.....*Atriplex*, and *Cheno-*
podium; on coast sands, &c.;
 also lettuce, in gardens
 " brassicæ.....cabbage, dock, *Chen-*
opodium, *chrysanthemum*, &c.
 " persicariæ ... *Polygonum persi-*
caria, and other low plants;
 also elder
 A. basilinea, h. growing wheat; on
 the immature grains; after hi-
 bernation, in spring, on various
 plants
 " gemina, h. ...grasses
 H. palustrisplantain, and other
 low plants
 A. sauciaplantain, dock, and
 other low plants
 " segetum, h.in r. of turnips, &c.
 " lunigera? will eat knot-
 grass, &c.
 " corticea, h. ...*Chenopodium*, &c.
 " ripæ*Cynoglossum offici-*
nale; on the coast; burrows
 7 in. or 8 in. in the sand
 " porphyrea, h. heath
 " pyrophila.....grasses, heath, and
 other low plants
 T. ianthina, h.*primula*, and other
 low plants; also broom, &c.

LARVÆ]

AUGUST

- T. Orbona, h. ...low plants, and broom; when young, on sallow buds
 " pronuba, h.dock, &c.
 N. augur, h. ...low plants, hawthorn, sallow, &c.
 " festiva, h. ...violet, sallow, foxglove, &c.
 " conflua, h. ...various low plants, including *Silene acaulis*
 T. gothicasallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.
 D. irregularis ...*Echium vulgare*, *Silene otites*
 " carpophaga ...*Lychnis*, and *Silene inflata*, the young seeds
 " capsicola ...*Lychnis*, and *Silene*, seeds [inflata, seeds
 " cucubali*Lychnis*, and *Silene*
 " conspersa*Lychnis flos cuculi*, and *Silene inflata*, seeds
 " cæsia, b.*Silene maritima*, *S. inflata*
 H. dysodeafl., and seed-heads of *Sonchus*, and *Lactuca* (lettuce, garden, and wild)
 " serena*Sonchus*, and wild lettuce
 E. lucipariabrake fern, and *Polypodium felix-mas*; also sallow, nettle, primrose, plantain, dandelion, &c.
 A. herbida, h. ...dock, and other low plants
 " advena, h. ...lettuce, knotgrass, and various plants
 H. adusta, h.hawthorn, and sallow, when young; afterwards, low plants
 " glaucasallow, birch, bilberry, heath; will eat lettuce, in confinement
 " peregrina*Chenopodium*, and *Salsola kali*
 " chenopodii ...*Chenopodium*
 " atriplicis*Chenopodium*, dock, *Polygonum persicaria*, &c.
 " suasaplantain, lettuce, knotgrass, &c.
 H. oleraceaelm, nettle, dock, cabbage, &c.
 " pisibrake fern, broom, scabious, grass, sedge, sallow, birch, mountain ash, &c.
 " thalassinihoneysuckle, sallow, broom, knotgrass, &c.
 " contiguabirch, oak, nut, &c.
 " genistæbroom, chickweed, *Silene*, *Polygonum*, &c.
 " rectilinea, h. sallow, bramble, bilberry
 X. lithorizahoneysuckle
 C. perspicillaris *Hypericum*
 C. lychnitisseeds of *Verbascum lychnitis*, and *V. nigrum*
 " asterisgolden rod, *Tripolium vulgare*, and China aster
 " gnaphaliigolden rod
 " absynthii*Artemisia absinthium*
 " chamomillæ, s. chamomile, fl.; also *Pyrethrum inodorum*, and *P. maritimum*
 " umbratica ... *Sonchus*, lettuce, &c.; hides by day under leaves, near the ground; feeds on the upper leaves, and fl. at night
 H. marginata ...rest harrow, preferring the fl.; also *Arenaria*, and *Hyoscamus*; knotgrass, in confinement
 " peltigerarest harrow, henbane, and several coast plants, preferring the fl.
 " dipsacea*Linaria*, fl.; also *Silene otites*, seeds; the pupa has been found among melilot
 A. cordigera ...*Vaccinium*
 " myrtilli, s., h. heath
 A. sulphuralis ...small convolvulus
 E. venustula*Tormentilla reptans*, fl.
 " fusculalavender grass (*Molinia cærulea*). May be found feeding at night, about half way up the blades of grass
 B. argentulagrasses
 H. unca*Carex*
 B. parthenias ...birch
 A. urticæ, e. ...nettle

LARVÆ]

AUGUST

- A. triplasianettle, hop
 P. chrysitis, h. ...Lappa, thistle, nettle, dead nettle, &c.
 „ festuæ, b. ...Carex, reeds, and grasses; near the sea
 „ gamma nettle, hop, and most low plants
 C. alchymista ...oak
 P. ænea.....Polygala vulgaris
 H. crassalis.....heath
 H. costæstrigalis thyme
 H. derivalis, h. ...sallow, bramble
 „ tarsipennalis, h. ...wild raspberry?
 „ will eat knotgrass, and willow
 „ grisealis.....Sisymbrium Sophia, oak, &c.
 „ cribralis, h.....sallow; afterwards, on Carex, and Luzula
 E. cingulalis.....Salvia pratensis, under the leaves
 B. lancealis.....Eupatorium cannabinum, Senecio, Sium latifolium, &c.
 „ fuscalis.....yellow rattle, seeds
 „ terrealis, h.....golden rod, fl., &c.
 „ asinalis, b.madder, fl., and young seeds
 E. catalaunalis...Linaria spuria
 P. margaritalis...wild mustard, seeds; live under a web, and change in spring
 S. palealis ...wild carrot, and Peucedanum; in a web, within a fl.-head of the umbels
 L. pulveralis ...Mentha aquatica
 S. coarctalis, b. ...moss
 N. angustella ...fruit of spindle
 G. canella, e. ...Salsola kali; mines the stems, when young; afterwards feeds on the unripe seeds
 R. formosella ...elm, birch
 M. sociellawax, in nest of humble bee
 H. prasinana ...oak, &c.
 „ clorana.....willow, buds
 A. prodromana Potentilla anserina, and most low plants
 P. hastianadwarf willows
 „ tristana.....guelder rose [ash?
 A. Conwayana...fruit of privet, nut?
- P. Lecheana.....sallow, willow, oak, honeysuckle, &c.
 P. prælongana ...birch
 „ sauciana (?) ...Vaccinium
 S. euphorbiana...Euphorbia paralias, heads
 M. rubiginosana? Scotch fir
 „ consequana ...Euphorbia paralias
 E. fractifasciana Scabious, heads
 P. biarcuana.....sallow
 „ myrtillana ...Vaccinium
 „ lundana, h.trefoils, and vetches
 „ derasanaRhamnus frangula
 „ diminutana ...sallows
 „ Mitterpacheriana elm, oak
 G. nigromaculana ragwort
 „ campoliliana in willow leaves
 „ obtusananut
 P. crenanasallows, willows
 E. trigeminana ...ragwort
 S. rufillanaumbels of wild carrot
 C. nemorivagana? Scotch fir
 „ vacciniana ...Vaccinium, and Berberis
 R. duplana?.....Scotch fir
 C. pomonana ...in apples, and pears
 O. funebrana ...in plums
 E. pisanain pea pods, and vetches
 S. Weiranabeech
 „ leguminana? alder
 „ orobanain pods of Vicia cracca, V. sylvatica, Orobus tuberosus, and Genista tinctoria
 C. ulicetanaseeds of furze
 „ canathistle heads
 „ Hohenwarthiana knapweed, and thistle
 „ aspidiscana ...golden rod
 X. Fabriciana ...nettle
 „ pariana.....apple, hawthorn
 E. hybridellana thistle, and ragwort, seeds
 „ vectisanaPlantago maritima
 „ cilianaseeds of cowslip
 A. cnicanathistle stems
 „ Mussehlana? seeds of Linum catharticum
 „ maritimana ...in stems, and r. of Eryngium maritimum

LARVÆ]

AUGUST

- E. Steinkellneriella hawthorn, mountain ash, sloe, &c. ; between turned-down leaves
P. calvella (fusca) h. in a case, on bramble ; 2 years feeding up
T. fuscipunctella on all kinds of waste substances
M. purpurella ? birch
" salopiella ? ...birch
" semipurpurella ? birch
" unimaculella ? birch
" sparmannella ? birch
" subpurpurella ? on various plants, in a flat case, of pieces of dried leaves
A. fibulellain a flat case, on leaves of Veronica chamædrys
N. scabiosellus, h. in seed-heads of Scabiosa arvensis; in the autumn, in its case, on various low plants
" capriacella, h. in seed-heads of teasle, and Scabiosa succisa
A. funerella ?
E. lobellaunder turned-down sloe leaves
D. pallorella, b. in leaves of Centaurea scabiosa
G. proximella ...in birch leaves
" scriptellamaple
" æthiopella ? ...among burnt heath
" costella Solanum dulcamara
" triparellaoak, between united leaves
" paupella Inula dysenterica, in fl-heads
" intaminatella Lotus corniculatus
M. ustulella, h.nut, birch, lime, maple, hornbeam, &c.
B. chenopodiella...Chenopodium, and Atriplex
" torquatella ...birch, elm
T. sericiellanut
" resplendella...alder
A. conjugella ...mountain ash, in the berries
G. stigmatellasallow, willow, poplar
L 2
- G. hemidactylella maple, and sycamore
" falconipennella alder
" phasianipennella Polygonum hydropiper, and sorrel
" imperialella...Symphytum officinale
C. Brogniartella oak
" cuculipennella ash, privet
O. avellanella ...nut
" guttella.....in turned-down leaves of apple
C. albicostella ...on pods of furze
" artemisicolella, h. fl. of Artemisia vulgaris, and A. campestris
" inflatellaSilene inflata, seeds
" siccifoliella .. hawthorn, apple, birch
" melilotella ...melilot, seeds
" Wilkinsonella birch
B. somnulentella convolvulus
C. Druriellahop
" orichalcella ...in leaves of Festuca arundinacea
L. subbistrigella in seed-pods of Epilobium montanum
E. serricornella Carex
A. terminetella Circaea lutetiana
A. Treitschkiella dogwood
L. padifoliella ...sloe, birch, &c.
P. suffusellapoplars
" salignella ..willows
C. scitellahawthorn, apple, &c.
" lotellaLotus major
" lathyrioliella in leaves of Lathyrus sylvestris
" orobiellaOrobis tuberosus
B. cidariellaalder
" cratægifoliella hawthorn
" Demaryella ...birch
" Boyerella ...elm
" frangulella ...buckthorn
" hippocastanella lime
N. minusculella pear
P. isodactylus ...in shoots, and stems of Senecio aquaticus, &c.
" pterodactylus convolvulus
" monodactylusConvolvulus arvensis, and Calystegia sepium, &c.

PUPÆ]

AUGUST

Although pupæ, of some kind or other, may be found at any period of the year, the middle of the present month is the best time to commence the systematic work of digging, and otherwise searching, for species which have arrived at this stage. From about that time this work should be followed, until the winter, as a regular part of the Collector's operations, as it is one of the best means of securing many species otherwise difficult to be got. The insects thus obtained come to hand in the finest condition, and many curious varieties often appear. Although the digging at trees has been long recommended, some kinds are only to be found at the roots of the low plants upon which they have been feeding, or in their immediate neighbourhood. Wherever there is a good mass of the food-plant of a desiderated species, the pupa should be sought, or dug for, near, or among the roots, of course, avoiding the destruction of the plant, if it should be rare or local.

- P. Machaonto April, on stems of Peucedanum palustre ; in fens
 A. cardamines ...on stems of grass, &c.
 V. urticæamong nettle
 " carduion, or near thistles
 L. Adonis, b. ...sub. at, or among Hippocrepis comosa
 O. antiqua ...in a web, on palings, &c.
 E. lanestriscocoon, on the ground, near hawthorn, sloe, &c.
 P. populito Oct., spun up, against oak, poplar, &c. ; near, or just beneath, the ground
 E. versicolora ...to March, spun up, at birch
 S. lunariato April, at sloe, oak, nut, &c.
 E. alniariaunder moss, on tree trunks, or between leaves
 " tiliaria, b. ...spun up, between leaves, or grass, at r. of oak, birch, &c.
 " fuscantaria, b. suspended, within a curled-up leaf
 H. pennariasub., at oak
 N. zonariasub., on sand-hills
 " hispidaria ...at oak
 A. prodromaria to Feb., sub., at oak, elm, &c. ; just beneath the surface
 E. punctaria... to April, fastened to leaf of oak, or birch
 E. pendularia ...to April, fastened to leaf of birch
 F. carbonariato April, among dead leaves of willow, and birch
 H. rupicaprararia in a web, on the ground, among oak, sloe, &c.
 " leucopheararia on the ground, near oaks
 " aurantiaria ...sub., at hawthorn, birch, oak, &c.
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 C. brumatasub., at oak, &c.
 O. dilutatasub., at oak, &c.
 L. multistrigaria sub., about Galium
 E. decolorata ...about *Lychnis dioica*
 E. venosataabout *Silene*, and *Lychnis*
 " fraxinata, e. to April, on ash ; under moss, and loose bark
 " vulgatato Mar., sub., about various plants, and trees
 " exiguato April, about oak, &c.
 M. ocellatato May, among Galium ; spun up, near the ground ; larva s. remains during winter
 A. badiatain earthen cocoon, on the ground, beneath dog rose bushes

PUPÆ]

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- A. derivatasub., at dog rose
 C. unidentaria, m. among bedstraw, and sweet woodruff, in a slight web, on the surface of the ground [broom
 C. obliquaria ...to April, among
 D. vinula, e. ...to May, spun up, on trunk of willows, poplars, and saw; three or four feet from the ground
 P. Cassineasub., at oak; deep
 N. carmelita...to April, sub., at birch
 D. cæruleocephala spun up, at hawthorn, and sloe; under bark, or on twig
 C. ocularis, e. ...at poplar; spun up, under moss, &c.; or between leaves
 " ridensspun up, at oak, among rubbish; or under bark; s. among leaves, and falls with them; tender
 A. alnito April, between leaves of various trees; or inside bramble sticks
 N. typhæ, e.....in stems of Typha latifolia
 G. flavagoinside thistle, and burdock stems; about 3 in. from the ground
 T. piniperda.....to Mar., at Scotch, and other firs, in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles; rarely within 2 ft. of the tree, 1½ in. to 2 in. deep
 T. gothicato Feb., at various trees; just beneath the surface
 " leucographa } to Feb., at r. of
 " rubricosa } low plants; below the surface
 " instabilis ... } to Feb., at r. of
 " stabilis } various trees; just below the surface
 " opimato Feb., at r. of Rosa spinosissima, and dwarf saw; below the sand, on sand-hills, in the North
 T. populetito Feb., sub., at poplars; especially Populus nigra; deep
 " gracilisto Feb., sub., at willows, saws, and low plants
 " miniosaamong fallen oak leaves, &c.
 " mundaunder moss, at base of oaks
 " crudato Feb., sub., at oak
 O. lota between leaves of willow, and saw; or on the ground
 " macilenta.....at r. of beech, and birch
 S. satellitiasub., at oak
 X. citrago, b. ... between united leaves of lime
 " cerago, b. ... sub., among low plants, near saw
 " gilvago, b. ...sub., at wych elm
 " auragoin a cocoon, at beech
 " ferruginea ... sub., at saw, poplar, &c.
 C. xerampelina sub., at ash; cocoon, very tender, and brittle
 D. templisub., at r. of Hera-cleum sphondylium, &c.
 M. oxyacanthæ ..in a cocoon, on the ground; among sloe; and hawthorn
 A. Aprilinasub., at oak
 C. vetustaamong meadow, and marsh plants; on the surface
 " exoleta among scabious, campion, rest harrow, &c.
 C. fraxini, b.....amongst the leaves of ash, and poplar
 " nuptaat Salix fragilis, and poplar; among the leaves; or in crevices of bark; or under loose bark
 P. festucaeconspicuous amongst rush, &c.; near the sea
 P. acanthodactylus on Bartsia, and rest harrow
 " dichrodactylus on tansy
 A. polydactyla ..on honeysuckle

IMAGOS]

AUGUST

Many Moths, in their fresh "palmy state," make their appearance this month; while we may often see sunny banks, or fields glowing

"With open, velvet butterflies,
That swing, and spread their peacock eyes,
As if they cared no more to rise
From off their beds of chamomile."

All kinds of flowers, especially in exposed situations, should be carefully examined, soon after sunset, for the Moths they attract. *A. saucia*, and other local species, are often found on garden flowers, and flowering shrubs. As the honey of most flowers has a stupifying effect on Moths, they may be easily boxed from the flower, or shaken into an umbrella first. Other species, which hover over flowers, either in the sunshine, or at early dusk, as *C. celerio*, and *S. convolvuli*, and also many Noctuæ, must be netted first, and immediately introduced into a wide-mouthed bottle charged with chloroform, bruised laurel, or cyanide of potassium. Some other natural attractions than flowers, are also worth noting. Newly cut-down birch trees, as well as exudations from the bark of standing ones, attract both Butterflies, and Moths; and Butterflies are also, sometimes, drawn to a particular spot by some white, or brightly coloured object.

But to the attractions which nature offers, the energetic Collector adds those of art,

"And with delusive baits betrays."

The sugar-pot should now be prepared, and liberally used. If, owing to the abundance of flowers, captures should prove rare, the flowers themselves should be sugared, especially thistles, and flowers presenting a large surface, as they will prove superior to tree trunks, &c. Our highest authority in English Entomology, Mr. Henry Doubleday, of Epping, says the sugar should always be applied to the trees before sunset, and when practicable it should be put on warm, as the scent is much more powerful than when it is applied cold. The greatest number of Moths will generally be found about three quarters of an hour after sunset, and in spring and autumn but few will be found after ten o'clock. Many species visit the sugar about an hour before sunrise, in the morning. Sugar is almost useless in the neighbourhood of lime trees, when they are in bloom, and also when there is much honey-dew. Neither should the allurements of light be forgotten. In a favourable situation this means of capture may be pursued far into the night, as some species do not respond to the call until a late hour of the night, or early hour in the morning. It is recommended that a bright light be placed near a slightly-open window, and a net used for the capture of specimens. A wag has suggested that the watcher may wile the idle time away by reading Young's "Night Thoughts," Bulwer's "Night and Morning," or the "Arabian (K)nights' Entertainments!"

Gas lamps often prove highly attractive to Moths, and many good species have been captured thereat, though it is not often that their condition is fine. Lamplighters in country towns may sometimes be bought over to box specimens for you, as they often find them when they clean the lamps; but you must give frequent calls upon the official to keep him up to his work, and the chances are in favour of your getting little else than a lot of rubbish, or

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if any species are good they will probably be found to be much damaged by the rough treatment they have received. "Many species, especially the good ones, settle under the lamp, or on some part of the frame-work where they are not easily got at, or even seen, without climbing the lamp-post; many lie very close to the frame, so that a keen inspection is required to detect them. Many species viewed from below appear like dead leaves, bits of stick, mud, &c. The time to commence the operation of 'lamping' is about 10 p.m. Very few Moths come sooner; but they continue to appear till dawn. From two to three o'clock is a capital time."

Many species which are ordinarily single-brooded in this country, are double, or treble-brooded on the Continent, where the summer is longer and hotter; but sometimes, in this country, in a hot season, an additional brood of an insect will appear. Thus, in 1868 there was a third brood of *S. Megara*. When this occurs, of course the times ordinarily set down for the appearance of a species should be somewhat advanced.

- P. Machaon*, s. ...fens, and marshes
L. sinapis, 2. ...woods; the autumn brood is rather smaller than the spring brood
P. brassicæ, 2....gardens, &c.
 " *rapæ*, 2.gardens, &c.
 " *napi*, 2.gardens, &c.
 " *Daphidice*, 2. has been taken in lucerne fields
G. rhamni, h. ...in woods
C. Edusa, h. ...lucerne, and clover fields, railway banks, &c. Fond of fl.
 " *Hyale*, h. ...lucerne, and clover fields; more especially near the coast
A. Latonafields, woods, &c.
 " *Euphrosyne*, s. woods, &c.
 " *Selene*, s. ...woods, &c.
V. polychloros, h. about elms
 " *Antiopa*, h....attracted by sugar, ivy bloom, and cossus-infected trees
 " *Io*, h.woods, &c.; at fl.
 " *Atalanta*, h. gardens, &c.; fond of fl., and fallen fruit
 " *cardui*, h.at fl.; often rests on a hot dusty road, and on the lead roofs of churches, and other buildings, in the sunshine
E. Medea
S. Ægeria, 2.woods, and lanes
 " *Megara*, 2.at fl., in lanes, and on walls, and banks
T. rubi, s. 2. ...in woods, &c.
 " *betulæ*in woods, at fl.; in wet weather may be readily taken with the fingers, as may many other butterflies
P. Hippothoe ...formerly in Cambridge fens
 " *Phleas*, s. ...fields, &c.
L. Boetica.....has been recently taken in this country
 " *Ægon*at rest, on heather, at night
 " *agestis*, 2. ...on hills, &c.
 " *Alexis*, e. 2....fields, and hills
 " *Adonis*, 2. ...chalk downs, and limestone hills
 " *Corydon*, b. chalk downs, and limestone hills
 " *Argiolus*, 2....among holly, and ivy, and at fl.
S. Alveolus, s....woods, &c.
T. Tages, 2.dry heaths, commons, and hills
H. sylvanus, 2....woods, and grassy hills
 " commahills, &c.
 " *Actæon*on the Dorset coast
A. Atroposat rest
S. convolvuli ...at fl., at dusk
D. euphorbiæ ...on the coast
 " *galii*on the coast
 " *lineata*
C. celerioat fl., at dusk
H. sylvinus, b....flies just before dusk

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- N. senexin wet places
 S. irrorella
 L. muscerdain fens, &c., among
 alder; flies in the evening
 " pygmæola ...at Deal
 " caniola, b. ... Cliffs of Howth;
 flies at dusk; in the dawn comes
 to sugar; males may be attracted
 by a bred female
 " stramineola (var.) by moist wood-
 sides, and ditches
 " quadrabeaten from fir, and
 oak
 D. pulchella in stubble fields,
 flying by day
 C. Hera has occurred at
 sugar, at Exeter
 E. russula, s. ...heaths, &c.
 A. fuliginosa, e. s. a succession of
 broods, from the same pair
 L. chrysorrhæa at rest
 " salicis on willows, and
 poplars
 " monachacomes to l.
 O. coenosafens, and marshes
 " gonostigma, s. at rest
 " antiquaflies just before a
 storm
 T. cratægithe ♂ fly between 6
 and 7 p.m., and probably again
 in the early morning. The ♀
 are very sluggish. In confine-
 ment the moth emerges gener-
 ally between 5 and 7 p.m.
 B. castrensisS.E. coast
 " roborisflies at dusk
 " quercus
 " trifoliinear the coast
 E. apiciariahedges, &c.; flies
 soon after 7 a.m.
 R. cratægata ...hedges, &c.
 E. fasciaria, h. ...among fir; flies at
 night
 P. syringaria, 2., s. gardens, &c.;
 flies at dusk, over fl.
 S. illustraria, 2...the summer brood,
 or var. delunaria
 C. elinguarua ...hedges, &c.
 E. tiliariacomes to l.
 " fuscantaria. e. comes to l.
 E. erosaria
 " angulariaon trees, &c.; comes
 to l.
 H. abruptaria, 2. in gardens and
 woods; rests on trees, and
 palings; comes to l.
 D. obfusca on heaths, about
 Scotch mountains
 A. trigeminata, 2. in some hot sum-
 mers many of the *Acidaliæ* are
 double-brooded
 " incanariaon palings, walls,
 &c., near gardens
 " ornata, 2.....in grassy places
 " promutata ...woods
 " mancuniata ...
 " subsericeata... beaten from wild
 rose
 " imitariaamong *Rosa spino-*
 sissima, at Portland
 " emutaria salt marshes of
 Kent, Norfolk, and the New
 Forest; flies at dusk. The
 Sheerness specimens are more
 tinged with rose-colour than
 the others
 C. exanthemaria woods
 S. plumaria
 M. euphorbiata, 2. ? woods
 S. sacchariaflies by day; has
 been taken at fl., at sugar, and
 at l.
 A. ononaria, 2. among, or near rest
 harrow
 A. citraria, 2. ...among wild carrot,
 chiefly on the coast
 " gilvariawild in the net
 A. grossulariata gardens, and hedges
 L. marginata ...woods, and hedges
 O. filigrammaria
 L. olivatawoods
 E. unifasciata ...
 " bifasciata ? ...in an old hedge, in a
 marsh
 " blandiata
 E. centaureata ...at rest, on palings,
 &c.
 " subfulvata ...at fl.
 " pygmæata, s. 2.
 " pimpinellata, 2.

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- E. indigata, 2. ...on fir trunks
 " constrictata ...
 " nanata, 2. s. ...on heaths
 " expallidata ...
 " assimilata, 2.
 " pumilata, 2.
 T. simulata, 2. ...
 " variata, 2., h. among larch
 " firmata ...
 M. rivata ...
 " fluctuata, 2., in gardens, &c.
 A. berberata, 2.
 C. ferrugata, 2. woods
 " unidentaria, e., 2.
 P. lapidataat Rannoch
 " lignata, e., 2. this brood is smaller,
 and generally more abundant
 than the first brood
 " polygrammata, 2. damp meadows;
 very local
 " vitalbata
 S. dubitata, h. ...at light
 C. russatawoods
 " immanata ...
 " silaceata, 2., h. among willow herb;
 beaten from thatch. Double-
 brooded only in the S.
 E. mæniatabeaten from broom;
 at E. Grinstead, &c.
 " lineolata, 2.rests on coarse
 grasses; on the coast
 A. plagiata, 2. ...
 P. falcula, 2.beaten from birch
 " hamula, s., 2. flies in the day time,
 generally in the morning; beaten
 from oak
 " unguicula, s., 2., a day flyer; beaten
 from beech
 C. spinula, 2.rests on palings, &c.
 P. brucephala ...at rest
 C. anachoreata ...
 " reclusa
 N. camelinaat light; hides on
 fern fronds, and in, and on trees
 " cucullina, s.comes out when a
 thunder storm is imminent
 " dictæaat rest, at base of
 willows, and large poplars
 " dromedarius, s.
 " tritophus
 N. ziczachides in bark
 crevices of poplar
 C. diluta
 B. glandifera ...on walls
 " algæ
 " perlaon walls
 A. alnithis rare species has
 occurred at sugar, but is oftener
 found in the larva state
 " auricoma, h.
 S. musculosa ...
 L. albipuncta ...at fl.
 " putrescens, b.
 " straminea, b. marshes, and fens
 " pallens, b. ...
 N. despectamarshes, and fens
 " fulvas. abundant in one
 corner of a meadow
 " neurica
 " brevilinea ...at Horning Fen,
 &c.; flies at dusk, among reed
 mace
 " cannæa marsh species
 " lutosain marshes
 H. nictitansat ragwort, & thistle
 fl.; comes to l.
 " petasitisamong butter burr
 " micæacomes to l.
 X. polyodon
 " scolopacina ...
 D. pinastri
 A. Australisamong grass; comes
 to l.
 L. exiguamost often taken at
 gas lamps
 N. saponaria ...
 H. popularis
 C. graminison commons; s. at
 ragwort, and thistle, fl.
 C. Cythereain dry, grassy places;
 comes to l.
 L. testacea
 " Dumerili
 " cespitishides in grass, by
 day; comes to l.
 M. furva
 " brassicærests on walls, &c.
 A. gemina
 " fibrosain marshy places
 " oculea

IMAGOS]

AUGUST

- M. literosaon the coast
 C. Haworthii ...
 A. caliginosa ...
 C. cubicularis ...beaten from thatch;
 flies in hay-fields
 A. valligeraat fl.; mostly on the
 coast
 " Puta, 2., h. ...
 " suffusa, h. ...
 " fennica
 " saucia, h.at fl.; comes to l.
 " segetum
 " lunigera
 " exclamationis often in kitchen
 gardens
 " spinifera
 " cursoriaby beating, on coast
 sand-hills
 " nigricans ...
 " tritici, b.
 " aquilina, b. ...
 " obeliscaon ragwort fl.
 " agathinabeaten from heath
 in the day time; flies over the
 fl., and rests on them, at night
 " porphyrea ...among heath
 " præcoxon sand-hills, by the
 coast
 " ravidia, b. ...comes to l.
 " pyrophila, b.
 " Ashworthii ...
 T. ianthina
 " fimbriacomes to l.
 " interjecta ...
 " subsequacomes to l.
 " Orbonacomes to l.
 " pronubacomes to l.
 N. glareosa, e.on heaths
 " depuncta
 " augur
 " plecta, b.
 " C. nigrum ...comes to l.
 " rhomboidea ...
 " brunnea
 " festiva
 " conflua
 " Dahlii
 " rubi
 " umbrosaat ragwort fl.
 " Baia
 " N. sobrina
 " neglecta on heaths, at sugared
 rags
 " xanthographa
 P. alpina
 O. suspecta
 A. rufina, e.
 " pistacina, e.
 " litura
 X. citrigo, e.at l., and ivy; this,
 and the two following frequent
 the leaves, and twigs of lime
 trees, at night
 " cerago
 " silago
 " aurago, e.at fl.
 " gilvago
 " ferrugineaat fl.
 C. xerampelina ...at l., and at rest, on
 ash trunks
 T. subtusa, b. ...
 " retusacomes to l.
 E. fulvagoin Sherwood Forest,
 at heath fl.
 D. oo.comes to l.
 C. trapezina
 " pyralina
 " diffiniscomes to l.
 " affiniscomes to l.
 E. ochroleuca ...at fl.; rests on knap-
 weed, thistles, &c.
 D. capsophila, s., 2.
 " capsicola, 2.
 " cucubali, 2. ? flies in the sunshine
 P. chion tree trunks
 " xanthomista...
 " flavocincta ...on walls, &c.
 E. lutulentaat heath fl.
 " nigraat fl.
 " viminalisamong shallows
 " licheneaon the coast
 M. bimaculosa ...
 P. meticulosa ...
 A. occultaat rest, early in the
 morning; unquiet when boxed
 " nebulosa
 " tinctaon trees, stumps,
 and palings; unquiet when
 boxed
 H. satura

IMAGOS]

AUGUST

- H. peregrina ...
 " chenopodii ...at fl., and l.
 " suasa, s., 2 ...
 C. solidaginis ...
 C. vetusta, e., h. at fl.
 " exoleta, e., h. at fl.
 X. furcifera, h. ...at ivy; rests on tree trunks
 H. peltigeramay be started from herbage
 armigeraat ivy
 " scutosaformerly nr. Silloth
 A. sulphuralis ...at l.; s. on fl. of knapweed, in the day time
 A. luctuosaflies in the sunshine, over fl., in clover fields, &c.
 A. urticae
 " triplasia
 P. orichalcea ...on the coast
 " chrysis, 2.among nettle
 " bractea
 " festucaein salt marshes; flies over *Lychnis* fl., &c.
 " iotaamong ground ivy
 " gammaflies in the sunshine
 " ni, 2.
 " interrogationis flies wildly; rests on rocks, and stumps, in dull weather
 G. libatrix, h. ...in cellars, and on palings, trees, &c.
 A. pyramidea ...
 " tragopogonis hides in windows
 " mauras. rests on inner surface of roofs of outhouses
 S. anomalaat heath, and flying along hedgerows, at night; remains fine but a very few days after emergence
 C. fraxini
 " nuptaat rest, on trees and walls; soon alarmed, when approached; comes to l.
 " promissa ... } in the New Forest, Norfolk, &c.; all the genus are somewhat restless
 " sponsa } when boxed, unless the box is capacious
 H. rostralis, h. ...
 H. albistrigalis at rush fl., and s. sugar
 " costæstrigalis at rush fl., and s. sugar
 H. derivaliscomes to l.
 A. flexulabeaten from hedges
 O. dentalison the coast, among viper's bugloss
 P. fimbrialiscomes to l.
 " farinalisin stables, &c.
 " glaucinalis .. in thatch; and at l.
 P. punicealis, 2. in grassy places; flies in the sunshine
 " ostrinalis 2. ?
 " sanguinalis 2? flies at dusk
 H. cespitalis 2. ?
 E. cingularis 2? on grassy hill-sides, &c.
 " anguinalis 2. ? ...on grassy hill-sides, &c.
 C. lemnalisamong the weeds of duckweed-covered ponds; flies at dusk; comes to l.
 P. stratiotalis ...among water plants; flies at dusk; comes to l.
 A. niveus, b. ...at rest, on twigs, &c. in weedy ponds and rivers, close to the water's edge, or flying slowly over the surface
 B. flavalisin chalk, and limestone districts, on the S. coast
 P. forficalis 2? ...gardens
 " stramentalis...beaten from undergrowth, in woods, fens, &c.
 S. sticticalisat l., and fl.
 " palealisamong wild carrot, and Peucedanum, on the S.E. coast
 " cinctalisclover fields; comes to l.
 S. alpinalison the tops of mountains, in Perthshire, &c.
 " lutealisin hedges
 " ferrugalisbeaten from hedges; flies at dusk; comes to fl., and sugar
 " decrepitalis ...
 S. Zelleribeaten out of old willows, and hawthorns

IMAGOS]

AUGUST

- S. cembræ*
 " *murana*among heath
 " *lineola*among old, lichen-covered sloe, and hawthorn bushes
 " *cratægella* ... [local
 " *resinea*on ash trunks, very
 " *phæoleuca* ...
 " *truncicolella* on fir trunks
 " *coarctalis* (*angustea*) on mossy walls
 " *alpina*
 " *pallida* in fens, &c.
P. alpinellus.....in sandy, grassy places, especially in fir woods; not a mountain species
E. ocellæa, e., h. comes to l.
C. verellus
 " *falsellus* common in England, more local in Scotland
 " *pratellus*, 2....s. at sugar
 " *dumetellus* ...
 " *ericellus* ...on moors, among heath; local
 " *sylvellus* (*adipellus*) in fens, &c.
 " *hamellus* in grassy places, among heath
 " *pascuellus*damp meadows, and moors; local; s. at sugar
 " *furcatellus* ...a mountain species, in Britain
 " *margaritellus* damp, grassy places, in open woods
 " *pinetellus* best obtained at night, by searching dry banks
 " *latistriellus* ...on coast sand-hills; local
 " *perlellus*
 " *Warringtonellus* on mosses, and moors, and on the coast; very local
 " *selasellus* fens, and wet meadows
 " *tristellus*
 " *fascelinellus*...on the coast, near Yarmouth; at rest, on the sand
 " *inquinatellus* among alder bushes, and on heaths; s. at sugar
 " *contaminellus* dry pastures; rather local
C. geniculellus...
M. cribrella.....among thistles; often on hills
T. pryorella
H. nimbellaamong *Jasione montana*, and thistles, and ragwort; on the coast
 " *nebulælla*among *Carduus nutans*, &c.; very local
 " *binævella*
E. pinguis.....rests on ash trunks; comes to l.
P. obductella ...
 " *ornatella*
 " *abietella*may be beaten from young fir trees
 " *roborella*
P. palumbella ...among heath
R. consociella ...s. at sugar
 " *advenella*
 " *tumidella*
O. ahenella
M. sociella
 " *anella*
G. cerella
S. Revayana, h. woods
T. rosana
 " *corylana*woods
 " *costana*.....fens, and marshes
 " *viburnana*.....boggy heaths, and moors
 " *icterana*dry banks
 " *adjunctana* ...
D. grotianaamong oak, in woods
A. Gerningana...heaths, and moors
L. literanaon oak trunks
P. sponsanawoods
 " *Schalleriana*...on moors, and fens; among sallow
 " *comparana* ...
 " *Caledoniana* Northern moors
 " *variegana*hedges
 " *cristana*among dwarf sallows
 " *Hastiana*among sallows
 " *maccana*Rannoch
 " *ferrugana*woods
 " *aspersana* ...Yorks coast, &c.
 " *Shepherdana* fens
 " *comariana* ...boggy heaths, and fens

IMAGOS]

AUGUST

- T. caudanawoods, and fens
 " contaminana hawthorn hedges, &c.
 D. Lorquiniana fens
 P. marginana ...damp woods, heaths, and fens
 S. acerianaamong poplars
 " dealbanain oak woods
 " rosæcolana ...in gardens, among roses
 S. euphorbiana South coast
 " bifasciana ...among Scotch fir
 " abscisanaat Folkestone, among Inula, and thistles
 " lacunana
 " urticanawoods
 M. Schulziana ...heaths, and mosses
 " Ratzeburgiana among spruce, and Scotch fir
 P. inornatana (subarcuana) in fens; local
 " paludanain fens; local
 " comptana.....chalk downs, &c.
 " Lundana
 G. nisananaamong sallow; local
 " trimaculana ...among elm
 " nævana.....among holly
 P. immundana ...woods
 H. augustana ...Durham, Scotland
 B. angustoriana garden hedges
 P. corticanaamong oaks
 " profundana ...among oaks
 " ophthalmicana among aspens
 " occultanaamong young fir
 " Solandriana...among alder, and poplar
 " semifuscana.. among willows
 E. bimaculana ...woods
 " Brunnichiana
 " tetragonana...among black briony
 O. ulmana..... Yorks, Norfolk, Surrey, &c.
 S. rufillanaamong wild carrot
 C. Hercyniana...among spruce
 R. pinicolana ...among Scotch fir
 " pinivorana ...among Scotch fir
 C. splendana ...among oak
 S. composana ...among clover, and trefolls
 " orobanaScarboro', &c.
 D. alpinanaat river sides, among tansy
 " Petiverana ...among yarrow
 " acuminatana railway banks, &c.
 " simpliciana ... among Artemisia vulgaris
 C. ulicetanaamong furze
 " canaamong thistles
 " Hohenwarthiana among thistles
 " Scopoliana ... among Centaurea nigra
 " æmulanaSouthend
 " pupillanaon the coast, among Artemisia
 C. scintillulana marshes
 E. dubitana
 " angustana ...on heaths, &c.
 " roseanaGravesend
 " implicitana ...woods, in the S.
 " anthemidana chalk districts
 X. Zoegana among Centaurea nigra
 C. rutilanaamong juniper
 C. dipoltanaon chalk, in the S.
 A. osseanamarshes
 P. Birdella
 S. chorargella ...Cumberland, Epping, and New Forest
 " emortuella ... Cheshire, Epping, Gloucestershire, &c.
 " cloacella... ..
 " arcella
 T. rusticella
 " monachella ...Cambs
 " confusella ...Howth, Hartlepool
 " misellain outhouses
 " pelliionella ...common, in houses
 " fuscipunctella
 " pallescentella in warehouses, and poulterer's shops
 " nigripunctellaYork, Bristol, Lewes
 " ruricolella ...
 S. comptella ...among sloe
 S. pyrellain hawthorn hedges
 Y. viginipunctella Guildford, Beckenham
 " plumbella ...among Eunonymus europæus
 " padellaamong hawthorn

IMAGOS]

AUGUST

- Y. evonymella ...among *Prunus padus*
 P. porrectella ...
 annulatella ...Howth, Castle Eden,
 Scotland, Portland, &c.
 Dalellaon moors
 H. sequellaon trunks of sycamore, and maple
 vittellaon trunks of elm, and beech
 radiatellaamong oak
 costella
 Y. sylvestraamong young oak
 alpellaamong oak
 lucella
 asperellaamong apple
 H. scabrellaamong crab apple; on tansy fl., at dusk
 nemorellaamong honeysuckle
 P. caudella, h.among *Eunonymus europæus*
 O. sparganella ...
 P. quercellaamong oak
 D. costosellaamong furze
 liturellaamong *Centaurea pallorella*, h.
 umbellellaamong furze
 assimilellaamong broom
 nanatella
 atomella
 arenella
 propinquella, h.
 subpropinquella, h.
 Alstræmeriella, h. among *Conium maculatum*
 cinifonella, h. Rannoch
 vaccinella, h.
 capreolella ...
 hypericella ...
 conterminella, h. among willows
 angelicella ... among *Angelica sylvestris*
 carduellaamong thistles
 ocellellaamong willow
 Yeatesiella ...in fens, &c.
 applanella, h.
 ciliella, h. ...
 rotundella ...Howth, Lancashire, Folkestone, &c.
 depressella ... Fleetwood, Essex, Folkestone, &c.
- D. pimpinella ...
 albipunctella, h.
 emeritella ...
 pulcherimella among *Bunium flexuosum*
 Douglasella ... Fleetwood, Redcar, Folkestone, Isle of Wight, &c.
 WeirellaPreston, Lewisham, Lewes
 chærophyllivorella, h.
 ultimellamarshes, &c.
 nervosella ...
 badiella
 discipunctella
 heraciella, h.
 olerellanear Hazlemere; beaten from thatch
 P. gibbosella ... Manchester, Hainault
 G. rufescentella marshes, &c.
 vilellaGravesend, Worthing, Folkestone, &c.
 hippophaella near Deal
 populellaYorks, Birkenhead, Bristol, &c.
 lentiginosella Preston, Epping, &c.
 velocellaWitherslack, Cambs
 fumatellaNew Brighton, Birkenhead, Dawlish
 ericetellamoors, and heaths
 mulinellaamong furze, and broom
 desertellasand-hills, on the coast
 acuminatella among thistles
 artemisiella ... coast sand-hills, Manchester, &c.
 senectellain lanes, &c.
 mundellacoast sands
 similella
 domesticella
 rhombella ...among crab, in hedges, &c.
 LyellellaCastle Eden, Witherslack, New Forest, Worthing
 distinctella ...Lytham, Croydon, Portland
 costellaamong *Solanum dulcamara*
 maculella

IMAGOS]

AUGUST

- G. tricolorella* ...
 " *fraternella* ...Manchester, Yorks, &c.
 " *vicinella*Belfast, Brighton
 " *junctella*Witherslack, Lake District, &c.
 " *Hubnerella* ...Carlisle, nr. Wakefield, Manchester, &c.
 " *marmorella* ...coast sand-hills
 " *instabilella* ...on the coast
 " *ocellatella* ...Folkestone, Preston, the Lizard; s. at sugar
 " *atriplicella*, 2. S. Shields, Scarborough
 " *sequacella* ...
 " *albicapitella*...
 " *tæniolella*.....
 " *immaculella*...W. Wickham
 " *anthyllidella*...railway banks, and coast sand-hills
 " *atrella*Witherslack, Darlington, West Wickham
 " *bifractella* ...Folkestone, Mickleham, Bristol
 " *gemmaella*.....Birkenhead, Bristol, Manchester
 " *næviferella* ...among Chenopodium
 " *Hermannella* Cambs, Yorks, &c.
 " *pictella*coast sand-hills
 " *brizella*..... near Dawlish, Brighton, Southend
 " *ericinella*heaths
 " *paupella* near Lewisham, Folkestone, Lewes
 " *inopella*near Bristol, Folkestone, Lewes
 " *Knaggsiella*...
 P. *Metzneriella* Darlington, Scarborough, &c.
 " *neuropterella* Deal, Mickleham
 C. *cytisella*
 " *striatella* Cambs, Brighton, Lewisham
 C. *conscriptella* Witherslack
 A. *spartiella*among furze
 M. *marginella* ...among juniper
 A. *palpella*Hainault, Ripley
 N. *Durðhamella* Bristol, Darenth, Deal
- CE. *flavimaculella* among *Angelica sylvestris*
 " *lunarella* Cambs, Lewes, Lewisham, &c.
 " *subaquilella*...Yorks, Lake District
 " *fuscoarella* ...West Wickham, &c.
 " *fuscescentella*
 " *pseudospretella* common in houses
 CE. *Kindermanniella* in houses
 A. *granitella* ...Cambs, Witherslack, Darlington
 " *autumnitella*, h. among *Solanum dulcamara*
 " *betulella*Castle Eden, and High Force; beaten out
 R. *Erxlebenella* among lime under-wood
 G. *equitella*among *Sedum acre*
 " *Fischeriella* ...
 A. *nitidella*among hawthorn
 " *semitestacella* among beech
 " *spiniella* among mountain ash, on moors
 " *semifuscella*...in hedges, among sloe, and hawthorn
 " *Andereggiella*
 " *aurulentella*...Sanderstead, Mickleham, Tenderden
 O. *pinariella*, 2. among Scotch fir
 Z. *hepariella*, h. Darlington, Lake District, &c.
 " *insignipennella* to April (probably ♀ of *hepariella*)
 G. *alchimiella* ...
 " *stigmatella*, h. among willow, and poplar
 " *stramineella*, h. Castle Eden, Lake District, Stirlingshire
 " *tringipennella* among *Plantago lanceolata*
 " *syringella*.....in gardens, among lilac
 " *omissella* among *Artemisia vulgaris*
 " *auroguttella*... among *Hypericum quadrangulum*
 " *ononiella*Cambs, Mickleham
 " *Hoffmanniella* at Richmond, Yorks
 C. *Brogniartella* Yorks, Lake District, Cambs

IMAGOS]

AUGUST

- C. cuculipennella, h. among privet
 O. avellanella ...among nut
 " anglicella.....among hawthorn
 " betulaevorella among birch
 " torquilella ...among sloe
 G. atriplicivorella Isle of Wight
 C. alcyonipennella in sheltered places,
 among Centaurea nigra
 " ochreella
 " salicornella ...Fleetwood
 " binotapennella near Brighton
 " anatipennella
 " discordella ...among Lotus major
 " trogloditella Yorks, Cambs, Castle
 Eden, &c.
 " squamosella...near Mickleham
 " annulatella (Tengstromella) among
 Chenopodium
 " salinellaYorks, and near
 Brighton
 " apicella (cacuminatella) fens, and
 marshes
 " virgaurella ...Grange, Scarboro',
 Devon
 " griphipennella among rose
 B. somnulentella
 B. praeangustella on poplars, and sal-
 lows
 O. v.-flavella ...in wine vaults, and
 cellars
 C. insecurella ...at Stoa's Nest, near
 Croydon
 " charophyllella
 L. paludicolella Lake District, Yorks,
 Cambs, Darlington
 " lacteellaYorks, Lake Dis-
 trict
 " miscellaWitherslack, Yorks,
 Castle Eden
 " Raschkiella ...Box Hill
 " Stephensella Hainault Forest
 " epilobiella, h.
 " ochraceella ...among Epilobium
 " decolorella ...among Epilobium
 " subbistrigella, h. ...Witherslack,
 Worthing, Devon
 C. Linneella ...in parks, &c., among
 old lime trees
 " Schrankella..... Witherslack,
 Scarboro', Scotland
 H. Roesella.....formerly near London
 A. Langiella ...Devon, Lake District
 C. festaliella..... among blackberry
 S. Brunnichella in chalk-pits, among
 Clinopodium vulgare
 E. luticomella ...
 " poellaamong Poa aquatica
 " Kilmunella ...moors, marshes, and
 bogs; among coarse grass
 " nigrella
 " subnigrella ... Scarboro', Bristol,
 Mickleham
 " Bedellella ...
 " subobscuraella Darlington, Scarboro'
 " zonariella
 " Megerlella ...
 " cerussella
 " biatomella ... Witherslack, Dar-
 lington, Cambs
 " cygnipennella
 T. margineaamong blackberry
 L. roborella, 2....most of these second
 appearances of the genus Litho-
 colletis do not occur in the North
 " hortellavery local
 " Amyotella ...
 " lantanella.....among guelder rose
 " quinqueguttella among dwarf sal-
 lows
 " irradiellaamong oak
 " Bremiella ...
 " lautella..... among oak
 " vacciniella ...Yorks, Scotland, &c.
 " cavella West Wickham
 " pomifoliella .. among hawthorn,
 and apple
 " spinicolella ...among sloe
 " faginellaamong beech
 " torminella ...Manchester, Lewis-
 ham
 " salicicolella ...among willow
 " viminetella ...Witherslack, Man-
 chester, &c.
 " carpinicolella among hornbeam;
 local
 " ulmifoliella ...among birch
 " spinolella.....among willow
 " quercifoliella among oak
 " Messaniella... among evergreen oak
 " corylifoliella among hawthorn

IMAGOS]

AUGUST

- L. Caledoniella Lake District, Darlington, Yorks, Scotland
 " viminiella.....among willow
 " ulicicolella ...among furze
 " alnifoliella ...among alder
 " Heegerella ...among oak
 " Cramerella ...among oak
 " tenella Epping, Windermere
 " sylvella (acerifoliella) among maple
 " emberizapennella Yorks, Lake District, &c.
 " Frolichella ...among alder
 " Dunningiella Darlington, Lake District, Yorks
 " Nicelliella ...among nut
 " Stettinella ...among alder
 " Kleemannella Scarboro', Harrogate, Preston
 " Schreberella...among elm
 " tristrigella ...among elm
 " trifasciella ...among honeysuckle
 " scabioscecolella
 " comparella ..London District
 L. Clerckella, h. among sloe, and fruit trees
 P. salignellaamong willows, near London
 C. spartifoliella among broom
 " laburnella ...among laburnum
 O. reliquella, b.
 B. aurimaculella... among Chrysanthemum leucanthemum
 " ulmella.....among oak
 " cristatellaamong yarrow
 N. atricapitella among oak
 " ruficapitella ...among oak
 " anomelella ...among rose
 " tiliæella, b. ...
 " perpygmæella among hawthorn
 " pomellaDarlington, Richmond, Yorks, Lewisham, &c.
 " oxyacanthella among hawthorn
 " viscerellaRichmond, Yorks, Darlington
 " catharticelella...Yorks, &c.
 " Septembrella among Hypericum
 " cryptellaScarboro', Darlington, Manchester [boro'
 " Headleyella... Mickleham, Scarboro'
 N. trimaculella...Darlington, Yorks
 " floslactella ...among nut
 " salicivorella ...among willow
 " myrtillella ...Witherslack, Yorks, Manchester
 " microtheriella ...among nut, and hornbeam
 " betulicolella... Darlington, Scarboro', W. Wickham, Manchester
 " ignobilella ...among hawthorn
 " acetosellaWitherslack, Isle of Wight, near Dublin
 " plagiolella ...among sloe [ter
 " prunetella ...Scarboro', Manchester
 " tityrellaamong beech
 " malella.....among wild apple
 " atricolella ...Darlington, Manchester, Lewisham [boro'
 " arcuosella.....Darlington, Scarboro'
 " marginecolella among elm; local
 " glutinosella ...Yorks, Darlington
 " aurellaamong blackberry
 " splendidissimella among bramble, dewberry, and wild raspberry
 " luteella.....
 " ulmivorella ...among elm
 T. atrifrontella...Lewisham
 " squamatella...Charlton, Bristol
 " immundella...among broom
 P. rhododactylus among rose
 " isodactylus among Senecio aquaticus
 " acanthodactylus on heaths
 " punctidactylus..... Lake District, Birkenhead, Bristol, Farnham
 " hieracii.....
 " pilosellæCambs, Mickleham
 " zophodactylus
 " fuscodactylus
 " lithodactylus among Inula dysenterica
 " pterodactylus among convolvulus
 " osteodactylus Scarboro', Witherslack
 " baliodactylus, b. Bristol, Lewes, Mickleham
 " tetradactylus among thyme
 " pentadactylus among Convolvulus sepium, and arvensis
 A. polydactyla, h. among honeysuckle

SEPTEMBER

OVA]

With fewer distractions, in the shape of freshly emerged Imagos, this month, more attention may be given to the search for eggs, especially when it is found so many species are now obtainable in that condition. When eggs have been obtained, they should not be kept "coddled up" in a close warm place, but should be secured on, or near, the food-plant, fully exposed to the weather, otherwise there will be great danger of their drying up.

- C. Edusa, s. on white clover, lucerne, &c.
A. Latona.....on violet, and heart-ease
T. quercuson oak twigs
" w.-albumon wyth elm; also elm; on the twigs
" pruni..... on sloe twigs
" betulæon sloe twigs
L. Ægonon Ornithopus perpusillus; white
" Alexison rest harrow, trefoil, &c.
H. comma on trefoil, and other Leguminosæ
L. disparon sloe, hawthorn, fruit trees; on the trunks, in a heap, covered with down
" monachaon oak, beech, fir, apple, birch, &c.
T. cratægi.....to Mar., on hawthorn, sloe, &c.; on roadside hedges; pale-brown, thickly covered with dark-coloured down
B. neustriaon hawthorn, sloe, fruit-trees; in batches, round the twigs, and branches
" castrensison Artemisia maritima, Daucus maritimus, &c.
C. elinguarison oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
E. vespertaria ...on nut
" apiciariaon poplar, willow, saw
E. alniaria to May, on alder, birch, saw, beech, &c.; brick-shaped, like all the Ennomos
E. tiliariato May, on oak, saw, birch, alder, &c.; purplish
" fuscantaria ... to May, on ash, privet; upon the twigs, in small batches
F. pinetariaon bilberry
O. filigrammaria to Feb., on saw
E. subciliata.....on maple; at foot-stalk of leaf
M. rubiginata ...on alder; large
L. lignataon Galium palustre, &c.
S. vetulata on buckthorn
C. immanata ...probably on alder, and other trees, and strawberry, bilberry, &c.
" prunataon currant, gooseberry, sloe, &c.; on the bark; large
" testataon heath, birch, saw, poplar, &c.; singly, large
" populataon bilberry, whortleberry, poplar; globular, large, yellow
" fulvataon dog rose; rose-pink, large
" pyraliataon Galium, and hawthorn
" dotataon black, and red currant; large
T. chærophyllata on Bunium flexuosum
D. cæruleocephala on hawthorn, sloe; ragged
B. glandifera ...on wall-lichens
" perla.....on wall-lichens
L. pallens..... on Deschampsia cæspitosa

OVA] SEPTEMBER

- N. lutosa ...on stems of common reed
 G. flavagoto April, on stems
 of marsh thistles, burdock, &c.;
 in heaps
 T. fimbria.....on primrose, broom,
 and various trees
 N. xanthographa on plantain, &c.
 A. rufinaon oak. Oval, with
 a slight peak rising from the
 centre, ribbed rather coarsely
 from base to centre; dirty-pink,
 brown round the base, and a
 conspicuous brown central spot
 C. xerampelina...on ash; probably
 in the chinks of the twigs, and
 the buds; round, smooth, dirty-
 white
 T. subtrusa.....poplar; upon twigs
 " retusato Mar., on willow,
 willow, poplar; upon the axils
 of the leaves
 P. chion dock, hawthorn,
 sallow; and probably lettuce,
 sow thistle, "tea tree," &c.
 " flavocincta ...to March, on dock,
 chickweed, groundsel, mint, &c.;
 in gardens, on everlasting pea,
 plum, &c.
 M. oxyacanthæ on hawthorn, sloe;
 rather large, distinctly ribbed
 P. empyreaon pilewort, on the
 leaf-stalks
 H. proboscidalis on nettle; rather
 large, pale-yellow

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Many "good" species may be found this month in a state closely approaching maturity, and about

"to keep
 The lazy sabbath of a half-year's sleep."

Several of these, however, are wholly out of reach in the day time, hiding among roots, in bark chinks, under leaves, stones, &c., and they are only to be found, with the aid of a lantern, feeding, or searching about for attractive pabulum, or a place of pupation,

"while, deep and wide,
 The dim night settles on the country side."

Although a large number thus found this month speedily pupate, still a good many which may be obtained by beating and sweeping, hibernate, some being very small; and unless the Collector is able to provide something approaching the natural conditions of larval life, they are best left until the spring. Their re-appearance at that season is duly recorded in the lists.

C. reclusa regularly appears twice a-year, in confinement; but when at large, its habits do not appear so regular. L. roboris will occasionally feed all the winter, if tolerably mild, and many other species will at times have a nibble, if the food-plant is handy. The eggs of C. xerampelina occasionally hatch this month, though generally later. The young larvæ feed only by night, on ash, though they will sometimes eat hawthorn, and guelder rose. Now is the time when we find

"Acorns, ripe, down pattering,
 While the autumn breezes sing;"

and in these same acorns we find the larvæ of two pretty little species, C. splendana, and C. Juliana. The acorns should be collected as soon as possible, before the larvæ make their escape, and kept in a proper receptacle in a cool place.

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SEPTEMBER

- L. sinapis *Vicia cracca*, and
 Orobus tuberosus
- P. brassicæ cabbage, &c.
- " rapæ *Cruciferae*, &c.
- " napi *Cruciferae*
- " Daplidice wild mignonette,
 and weld
- V. polychloros, s., h. ground shoots
of elm; will also eat osier, willow,
aspen, and fruit trees. The
eggs of this species are s. laid
about this time, and hatch, and
the young larvæ hibernate. It
is, however, generally supposed
that none of the *Vanessæ* pair
until the spring
- " cardui thistles; will also
 eat nettle
- E. epiphron, h. probably on *Nardus*
stricta, and small rushes; in
mountain bogs
- " Medea, h. ... moorland poa, and
 other grasses
- S. Egeria, h. ... grasses
- " Megera, h. ... grasses
- " Semele, h. quaking grass,
 couch grass, &c.; on dry hill-
 sides, &c.
- " Ianira, h. meadow grasses
- " Tithonus, h. annual meadow
 grass, &c.
- " hyperanthus, h. annual meadow,
 millet, and other grasses
- C. Davus, h. ... *Rhyncospora alba*
- P. Hippothoe, h. great water dock
- " Phlœas, h. ... dock, ragwort, sorrel
- L. Bœtica *Colluta arborescens*
- " agestis, h. *Erodium cicutarium*
- " Argiolus ivy, fl. The eggs
of this, the second brood, are
laid on the fl.-stalks; the young
larvæ burrow in the unexpanded
fl.-buds, feed up in the blossom,
and spin up on the underside of
a leaf; the butterfly appearing
in April, or beginning of May
- N. Lucina *Primula*
- T. Tages, h. *Lotus corniculatus*
- H. Paniscus plantain, in rolled-
up leaves
- H. lineæ, h. grasses, in rolled-up
blades
- S. populi poplar, willow, &c.
- " tilia elm, lime, beech
- A. Atropos potato leaves; will
also eat "tea tree," jasmine,
ash, woody nightshade, snow-
berry, *Lycium barbarum*, elder,
thorn-apple, spindle, sweet pea,
&c.; hides under sods
- S. ligustri privet, lilac, ash,
holly, mountain ash, laurestinus,
guelder rose, evergreen oak, &c.
- D. euphorbiae ... *Euphorbia paralias*
and *cyparissias*
- " galii *Galium verum*, and
 G. elatum. (See last month's
note.) This species is s. found
on the sand-hills at Deal, from
the first battery Southwards, as
far as the large sand-hills ex-
tend, and from the sea West-
ward, for two or three hundred
yards
- C. celerio *Galium*, and vine
- " nerii oleander
- M. stellatarum ... *Galium Mollugo*,
growing on old walls, exposed
to the sun
- S. formicæformis, h. in osier stumps
- " muscæformis in stems of *Statice*
 armeria
- " bembeciformis, h. in the stems of
 poplar, and willow
- " apiformis, h. in poplar stems, &c.
- Z. æsculi, h. in the wood of ash,
elm, pear, horse chesnut, &c.
- C. ligniperda ... in the trunks of large
trees of ash, willow, elm, &c.;
feeding on the wood, seldom
higher than 5 ft. from the ground.
They may be found during this
month, or the next, full-fed,
under the bark which is an inch
or two under the ground. If it
is desired to feed them up,
care must be taken not to put
them into a wooden, or even a
brick receptacle, as they will be

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- sure to eat, or force their way out. They are best kept in large flower pots, wide-mouthed bottles, or tin boxes, and supplied with fresh-cut, but not wet, chips, and sawdust of their food, or with decayed pieces, and covered with glass, or wire gauze, well secured. Keep a sharp look-out for mildew
- H. hectus, h. ...in r. of brake fern
 " lupulinus, h. ...in r. of dead nettle, &c.
 " velleda, h. ...in r. of brake fern
 " humuli, h. ...in r. of various plants
 L. asellusoak, beech, poplar
 testudooak
 S. phegea, h. ...doubtful native. On the Continent it feeds from this month to May, on dandelion, scabious, plantain, &c.; pupa under moss, and dried leaves
 L. aureola, h.lichens, on oak, larch, &c.
 " lurideola, h.lichens
 " rubricollislichens, on larch, &c.
 E. cribrum, h.heath, bilberry
 C. Hera, h.doubtful native. On the Continent it feeds from this month to May, on Echium vulgare, and various low plants
 " dominula, h. Cynoglossum officinale, &c., on hilly places
 E. russula, h.plantain, heath, &c.
 C. plantaginis, h. violets, plantain, &c.
 " caia, h.nettle, and various plants
 " villica, h.chickweed, furze, sloe, and other plants
 A. fuliginosa, h. dock, nettle, plantain, &c.
 L. chrysorrhæa, h.hawthorn, sloe, blackberry, &c.
 " auriflua, h.sloe, hawthorn, oak, saw, &c.
 " salicis, h.poplar, willow, &c.
 O. pudibunda ...hop, beech, hawthorn, nut, oak, &c.
 " fascelina, h.on hedges, dwarf willows, furze fl., heath, broom, and various trees, and plants
 O. gonostigma, h. oak, saw, nut, hawthorn, sloe, bramble, beech, &c.
 " antiquavarious trees, and shrubs
 D. corylibeech, nut, birch, alder, oak, willow. Sometimes, in confinement, the larvæ feed up, and emerge this month
 B. rubi, h.bramble, heath, &c.; generally hibernates full-bred; s. buries in the ground, until the spring
 " roboris, h. .. hawthorn, dogwood, bramble, broom, heath, ivy, &c.
 " quercus, h. ...bilberry, &c.; dogwood preferred
 " trifolii, h.trefoil, clover, broom, furze, &c.
 O. potatoria, h. coarse grasses
 L. quercifolia, h. bramble, sloe, saw, willow, plum, &c.
 O. sambucata, h. ivy, elder, holly, bramble, and other trees, and plants
 R. cratægata, h. hawthorn, sloe
 V. maculatanettle, and other plants
 M. margaritata, h. oak, beech, birch, hornbeam, &c.
 E. fasciaria, h. ... Scotch fir; rests closely pressed upon a twig
 E. dolobraria ...oak, beech, birch, aspen
 P. syringaria, h. lilac, privet, honey-suckle, elder
 S. illunariawillow, ash, hawthorn, oak, plum, &c.
 " illustrariaoak, birch, ash, beech, maple
 O. bidentataoak, saw, nut, ivy, ash, sloe, &c.
 A. betulariaoak, elm, hawthorn, birch, beech, alder, mountain ash
 C. lichenaria, h. lichens, on oak, park palings, &c.
 B. rhomboidaria, h. ivy, birch, oak, plum, rose, lilac, elder, &c.

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- B. abietaria, h. larch, spruce, Scotch fir; has been found on whortleberry; will also eat birch, and oak
- " cinctariaheath. In confinement the impregnated females deposited their eggs, by preference, on sallow catkins
- " roboraria, h. oak; h. on a twig, which it much resembles
- T. crepuscularia larch, willow, poplar, elm, birch, alder, &c.
- " extersaria.....birch, beech, oak
- G. obscurata, h. thyme, sun cistus, Potentilla reptans, Poterium sanguisorba, &c. Feeds at night; hides by day under r., stones, &c.
- D. obfuscata, h. heath, vetch, &c.
- G. papilionaria, h. nut, birch, alder, beech, &c.; about the m. of this month, in the N., the larva fastens itself to a twig, for the winter
- I. vernaria, h. ...Clematis vitalba
- " lacteariaoak, birch
- P. baiularia, h. oak
- E. porataoak
- " punctariaoak
- " trilinearia ...beech
- " omicronaria ..maple; s. beech
- H. auroraria, h. plantain
- A. luteatamaple
- " Blomeraria ...wyth elm; in, or near hilly woods; remains, on the under-side of the leaves
- E. heparataalder
- V. cambricaria...mountain ash
- A. rubricata, h. — ? will eat knotgrass, Lotus corniculatus, Medicago lupulina, Thalictrum minus, and the smaller Trifoliums
- " scutulata, h.Anthriscus sylvestris, fl., and dandelion, preferring the withered leaves
- " bisetata, h. dandelion; will also eat knotgrass, and withered bramble
- " contiguaria, h. Empetrium nigrum; will also eat hawthorn buds, and knotgrass
- A. rusticata, h.hawthorn; will also eat ivy, lilac, and withered bramble
- " osseata, h. ...dandelion, &c.
- " interjectaria, h. dandelion, scarlet pimpernel, withered
- " holosericata, h. sun cistus, withered
- " incanariadandelion, groundsel; will also eat knotgrass
- " ornata, s., h. thyme, marjorum; will also eat mint
- " promutata, h. yarrow, mugwort, " creeping cinquefoil
- " immutata, h. some marsh plant; common in fens; will also eat knotgrass
- " strigilata, h.Stachys sylvatica
- " emutaria, h.Triticum repens; in salt marshes, on the coast; will also eat Medicago lupulina, Lotus corniculatus, Chenopodium, mint, knotgrass
- " aversata, h.primrose, gooseberry, nut, Geum urbanum, &c.
- " degeneraria, h. — ? will eat bramble, knotgrass, Cerastium, Veronica. Occurs at Portland
- T. amataria, h.dock, Polygonum, and various plants; may be found on the underside of the leaves, adhering to the veins
- C. pusaria.....oak, nut, alder, birch, willow, &c.
- " rotundaria ...birch, willow
- C. temeratasloe, and wild cherry, and buckthorn?
- M. alternata, b. willow, sloe
- " notata, b.sallow
- " liturata.....larch, and Scotch fir
- S. belgiaria, h.heath
- F. atomaria, h.Centaurea, trefoils, &c.
- " piniariaScotch fir, and larch
- " conspicuata...broom
- M. euphorbiata... Euphorbia cyparissias
- S. dealbata, h.grasses
- S. sacrariadock, chamomile, and other Compositæ; will also eat knotgrass

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- A. ononariarest harrow [&c.
 A. gilvaria, h. Achillea millefolium,
 A. ulmatawyitch elm [lars
 L. marginatasallow, willow, pop-
 P. hippocastanaria, h. heath
 L. cæsiata, h. ... bilberry, whortle-
 berry, heath
 " pectinitaria ... Galium Mollugo, G.
 sextatile; very sluggish
 E. alchemillata... Galeopsis ladanum,
 G. tetrahit, Silene, Lychnis
 " unifasciata ... Odontites rubra
 " blandiataeyebright
 E. centaureata ... ragwort, Angelica,
 golden rod, &c.
 " succentureata... Achillea millefo-
 lium, Artemisia, and Valerian
 officinalis, seeds
 " subfulvata..... Achillea millefo-
 lium, and chrysanthemum
 " subumbata ... Gentiana, Campan-
 ula, and other fl., in, and near
 beech woods
 " helveticata ... juniper
 " satyrata Galium, scabious,
 and other fl., in, and near beech
 woods
 " castigata golden rod, heath,
 nettle, Angelica, &c.
 " trisignata Angelica sylvestris,
 fl., and seeds
 " virgaureata ... golden rod, fl.
 " albipunctata... fl., and seeds of An-
 gelica sylvestris, Heracleum
 sphondylium, and Lythrium
 salicaria
 " pimpinellata Pimpinellata magna,
 and P. saxifraga (seeds); also
 angelica
 " fraxinata ash; will eat fl. of
 laurustinus
 " innotata? Artemisia campes-
 tris; at Wallasy
 " constrictata... thyme
 " nanata, h. ... heath, fl.
 " subnotata..... Atriplex, & Cheno-
 podium, fl., and seeds
 " campanulata ... seed-capsules, of
 Campanula trachelium, and
 other Campanulæ
 E. vulgata, 2. ... hawthorn, willow,
 golden rod, ragwort, &c.
 " expallidata ... golden rod, fl.; will
 also eat Michaelmas daisy, &c.
 " absynthiata ... fl., and seeds of rag-
 wort, Eupatorium cannabinum,
 Artemisia vulgaris, Achillea
 millefolium, golden rod, &c.
 " minutata, h. heath, fl., and sca-
 bious; s. a cannibal
 " knautiata Knautia arvensis,
 fl., and seeds
 " assimilata ... black currant (on
 underside of the leaves), and
 hop (on the leaves, and ♀ fl.)
 " exigua hawthorn, black
 currant, barberry, ash, alder,
 saw, &c.
 C. sparsata Lysimachia vul-
 garis, fl., and leaves
 L. sexualata saw, willow
 T. juniperata ... juniper
 Y. ruberata saw, alder, bil-
 berry, &c.
 " impluviata ... alder, saw; in
 curled-up leaves; does not
 change into a pupa until Dec.
 M. albicillata ... bramble, raspberry
 M. tristata Galium Mollugo
 " procellata ... Clematis vitalba
 " rivata? Galium Mollugo
 " sociata Galium Mollugo
 " galiata, b. ... Galium sextatile
 " fluctuata, b. cabbage, horse
 radish, nasturtium, &c.
 A. berberata, e. barberry
 C. munitata, h. groundsel
 " propugnata primrose? Cruci-
 feræ? &c.
 " ferrugata Nepeta glechoma,
 Galium, chickweed
 P. tersata Clematis vitalba
 " lignata, h. ... Galium palustre, &c.
 S. undulata saw, poplars;
 between leaves
 C. corylata sloe, lime, nut
 " suffumata, h. Galium Mollugo, and
 ragwort
 " silacea willow herb (Epilo-
 bium), and Cirsæa lutetiana

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- P. comitata* *Chenopodium*
E. lincolata *Galium verum*, on
the coast; will also eat *G.*
sexatile, and *G. Mollugo*
C. obliquaria ... broom
P. lacertula birch; between
united leaves
" *hamula* oak, birch
" *unguicula* beech
D. bicuspis alder, beech, birch
" *furcula* willow, willow,
poplar
" *bifida* poplars [nut
S. fagi beech, oak, birch,
beech, willow, nut, &c.
C. bucephala elm, oak, lime,
beech, willow, nut, &c.
C. curtula poplars, willow
" *reclusa* between united leaves
of willows, poplars, willows
P. palpina willows, willows,
poplars, birch
N. camelina ... oak, beech, birch,
maple, nut, alder, hawthorn,
aspen, willow, apple
" *cucullina* maple, sycamore
" *dictæa* poplars, willow, wil-
low
" *dictæoides* ... birch
" *dromedarius* ... birch, alder, nut
" *trilophus* birch, poplars
" *ziczac* poplars, willow, wil-
low, alder; more frequently
found than the imago
" *Dodonea* oak, birch
T. derasa bramble, hawthorn,
" *batis* bramble, raspberry
C. duplaris birch; between
united leaves
" *fluctuosa* birch; between
united leaves
" *ocularis* poplars
R. glandifera, h. ... lichens on walls;
local. This species, and the
next, build a cocoon of silk and
earth, mortar, or crumbled
stone, like a blister on paint,
in which they live, except
when they come out to feed,
in the night, or early morning,
especially in wet weather
B. perla, h. ... lichens, on walls
D. Orion oak, birch
A. tridens hawthorn, sloe, rose,
willow, willow, mountain ash,
&c.
" *psi* hawthorn, poplar,
pear, elm, lime, &c.
" *leporina* birch, poplar, alder,
willow
" *aceris* sycamore, horse
chestnut, maple, birch, s. oak
" *strigosa*, b. ... hawthorn; especially
in chalky districts
" *alni* alder, oak, lime,
elm, beech, birch, sycamore,
poplar, nut, willow, willow,
hawthorn, bramble, Spanish
chestnut, horse chestnut, rose.
Has been found, at rest, on
palings, &c.
" *ligustri* ash, privet; seems
to prefer shaded trees
" *auricoma*, s., 2. ? bramble,
bilberry, birch, oak
" *myricæ* *Myrica gale*, heath?
thistle? willow, birch
S. venosa *Glyceria aquatica*
L. obsoleta common reed, in
marshes, and fens; concealed,
by day, in hollow stems
S. ulvæ, h. ... common reed; in
marshes, and fens
X. hepatica, h. grasses, chickweed,
&c.
D. pinastri dock, sorrel, &c.
L. exigua plantain
C. cytherea, h. ... grass; in stony
places
M. brassicæ cabbage, dock,
Chenopodium, *chrysanthemum*,
&c.
" *persicariæ* ... *Polygonum persi-*
caria, and other low plants;
also elder
A. gemina, h. ... grasses
" *unanimis*, h. grasses
C. Morpheus *Sedum telephium*,
willow, bramble, docks, teasle,
&c.
" *alsines*, h. ... chickweed, &c.

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SEPTEMBER

- C. cubicularis, h. grasses, pulse, grain
 R. tenebrosa, h. violets, knotgrass, and other low plants
 A. Putadandelion, lettuce, carrot r., knotgrass, &c.
 " segetum, h.in r. of turnips, and other Cruciferae, &c.
 " lunigera—? will eat knotgrass, &c.
 " exclamatoris, h. r. of cabbage, grass, turnips, &c.
 " corticea, h. ...Chenopodium, &c.
 " cinerea, h.of low plants
 " ripaeCynoglossum officinale, on the coast; burrows 7 or 8 in. in the sand
 " Ashworthii, h. fescuegrass, hawkweed, sun cistus, thyme, heath, harebell, &c.
 N. augur, h.low plants, hawthorn, sallow, &c.
 " nigrum, h. ...pea stems, and low plants
 " rhomboidea, h. chickweed, sallow
 " festiva, h. ...violet, sallow, foxglove, &c.
 " Dahlii, h. ...various low plants
 " umbrosa, h.dock
 D. carpophaga, s. ... Lychnis, and Silene inflata, the young seeds
 " capsophila ... Silene maritima, and S. inflata
 " capsincola ...Lychnis, and Silene, seeds
 " conspersa..... Lychnis flos cuculi, and Silene inflata, seeds
 E. luciparabrake fern, & Polygonum filix-mas; also sallow, nettle, primrose, plantain, dandelion, &c.
 A. nebulosa, h. birch, sallow, hawthorn, &c.
 " tincta, h. birch, grass, and low plants
 " advena, h. ... lettuce, knotgrass, and various plants
 H. adusta, h. ... sallow; also low plants, and hawthorn; the larva hibernates full-fed
 " chenopodii ...Chenopodium
 H. atriplicis ...Chenopodium, dock, Polygonum persicaria, &c.
 " oleraceaelm, nettle, dock, cabbage, &c.
 " pisibrake fern, broom, sallow, birch, mountain ash, scabious, Carex, grass
 " contiguabirch, oak, nut, &c.
 " genistae.....broom, chickweed, Silene, knotgrass, &c.
 " rectilinea, h. sallow, bilberry, bramble
 C. lychnitisseeds of white, and black mullein
 " asterisgolden rod, Trifolium vulgare, and China aster
 " absynthiiwormwood
 " umbratica.....Sonchus, lettuce
 H. dipsaceaLinaria, fl.; also Silene otites, seeds
 A. myrtilli, s. h. heath
 E. fusculalavender grass (Molinia cærulea). May be found feeding, at night, about half way up the blades of grass
 A. urticaenettle
 " triplasianettle, hop
 P. chrysitis, h. ...Lappa, thistle, nettle, dead nettle, &c.
 " gammanettle, hop, and most low plants
 M. typica, h. ...dock, low plants, &c.; gregarious until after h.
 " maura, h.dock, chickweed, ivy, &c.
 P. ænea..... Polygala vulgaris
 H. crassalisheath
 S. emortualis ...oak
 H. derivalis, h. sallow, and bramble
 " barbalis, h. ...oak; afterwards, birch catkins
 " tarsipennalis, h. wild raspberry? will eat knotgrass, and sallow
 " grisealisSisymbrium Sophia, oak, &c.
 P. punicealis.....Nepeta cataria, fl.-heads
 R. sanguinalis ...thyme, fl.
 E. cingulalis, h. Salvia pratensis, under the leaves

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- B. lancealisEupatorium canna-
binium, Senecio, Sium latifo-
lium, &c.
" terrealis, h. ...golden rod, fl., &c.;
hibernates nearly, if not quite,
full-fed
" urticalisnettle
E. sambucalis ...elder, convolvulus;
may be found hiding, among
the corymbs of elder
P. forficariscabbage, horse-
radish, &c.
S. palealis.....wild carrot, and
Peucedanum; in a web, within
a fl.-head, of the umbels
A. farrella ...Anthyllisvulneraria, fl.
H. nimbella .. chamomile
" nebullella.....heads of thistles;
also China aster
" saxicolafl.-heads of chamo-
mile
C. bistrigella ...alder, between the
leaves
P. interpunctella on grain, figs, dried
insects, &c.; in corn, and
seed, and grocers' warehouses,
&c.
N. angustella ...fruit of spindle
G. canella, b. ...Salsola kali; mines
the stems, when young; after-
wards, feeds on the unripe
seeds
P. adelphella ...poplar, willow
" abietella, h.... young shoots of
Scotch fir, and decayed wood,
and cones
P. palumbella, h. Polygala
R. formosella ...elm, birch
M. alveariella ...wax in beehives;
some hibernate, and others
emerge next month
T. viburnana ... Myrica gale, and
Vaccinium
" ministrana ...willow, nut, birch,
buckthorn
L. scabranaelm
P. Hastianadwarf sallows, and
hawthorn
" umbranapoplar, willow, horn-
beam (?)
P. tristana.....guelder rose
A. Conwayana...fruit of privet, nut?
ash?
P. prælongana ...birch
" dimidiana ...Myrica, birch, willow
" marginana ...teazel, and probably
seed-heads of Compositæ
M. Ratzeburgiana? Scotch fir
" consequana ...Euphorbia paralias
C. musculana ...hawthorn, &c.
P. myrtellana ...Vaccinium
" lundanatrefoils, and vetches
" derasanaRhamnus frangula
" Mitterpacheriana elm, oak
" upupana (?)...oak, birch
G. nigromaculana ragwort
" campoliliana in willow leaves
" geminana.....Vaccinium; s. apple
P. tetraquetra in leaves of birch
" crenana?sallows, willows
P. oppressana? poplar
E. cirsiiana, h. ...in thistle, and knap-
weed stems; in woods
" Pfulgiana, h. in thistle, and knap-
weed stems; in open places
" nigricostana, h. Stachys, r.
" trigeminana ...ragwort
S. ianthinana ...hawthorn berries
" rufillana umbels of wild
carrot
C. vacciniiana ...Vaccinium, and Ber-
beris
P. mercuriana? Dryas octopetala
C. splendana ...in acorns; to be
collected as soon as possible,
and kept cool; also walnuts
" grossanain beech nuts
O. funebrana ...in plums
E. pisanain pea pods, and
vetches
S. Weiranabeech
" redimitana ...oak
" germarana ...in plums
" roseticolana...hips of roses
" orobanain pods of Vicia
cracca, V. sylvatica, Orobus
tuberosus, and Genista tinctoria
D. plumbana ... pods of vetches?
&c.
" plumbagana Achillea millefolium

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- P. Rheedianawild plum, and apple
 C. Juliana?acorns
 " microgrammana? Ononis?
 " fulvanaheads of Centaurea scabiosa
 " Hohenwarthiana knapweed, and thistle
 " scopoliana ...Centaurea, heads
 " citranaArtemisia campestris
 E. dubitanaHieracium, fl., and other Compositæ
 " atricapitana...stems of ragwort
 " maculosana? raspberries?
 " hybridellana thistle, and ragwort, seeds
 " notulana? ...mint, stems
 C. tessarana, h. in r. of Picris hieracioides
 A. badianain stems, and r. of burdock
 " maritimana...in stems, and r. of Eryngium maritimum
 C. dilucidana ...in stems of parsnip
 " stramineana...Centaurea, heads
 " alternanaCentaurea scabiosa, heads
 " inopianain r. of Artemisia campestris
 T. hyemanahawthorn
 L. salicelladog rose; between united leaves
 D. fagellaon most trees; between united leaves
 E. Steinkellneriella hawthorn, mountain ash, sloe, &c.; between turned-down leaves
 T. misellain dried stems of beans, and unthrashed wheat
 " bistrigellabirch
 L. prælatella, h. in a flat case, on underside of wild strawberry
 I. muscallella, h. rose, &c.
 A. fibulellain a flat case, on leaves of Veronica chamædrys
 " rufimitrella ...Cardamine pratense
 N. scabiosellus, h. various low plants
 " cupriacella, h. various low plants
 S. comptellasloe, and plum
 S. cæsiellahawthorn, and apple
 " griseocapitella birch
 " lutarellahawthorn
 " pyrellahawthorn, apple, pear, &c.
 Y. viginipunctella Sedum telephium
 A. decemguttella Lithospermum
 P. xylostellaturnip, &c.
 E. lobellaunder turned-down sloe leaves
 D. depressella ...seed-heads of wild carrot
 G. malvellahollyhock, seeds
 " ericetella, h. Erica cinerea, E. tetralix, and Calluna erica
 " acuminetella in thistle leaves
 " aleellamoss
 " tenebrella, h. in r., and lower stem of Rumex acetosella
 " lathyrella—?
 " notatellasallow
 " atriplicella Atriplex, and Chenopodium, seed heads
 " triparellaoak, between united leaves
 " nigricostella... lucerne, between united leaves
 " intaminatella Lotus corniculatus
 P. lappellaknapweed, and burdock, seeds
 M. fasciellasloe
 " ustulella, h. ... nut, birch, lime, maple, hornbeam, &c.
 C. flavimaculella Angelica, seeds
 " stipellaunder bark of dead fir trees
 " flavifrontella, h. in a case, on beech
 B. torquatella ...birch, elm
 " incongruella...Erica, and Calluna
 T. stanneella ...oak
 " resplendella...alder
 G. alchimiella .. oak
 " Kollariellamining leaves of broom
 " stigmatellasallow, willow, poplar
 " syringellaprivet, lilac, ash
 " omisellaArtemisia vulgaris
 " phasianipennella Polygonum hydropiper, and sorrel

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- G. auroguttella... willow herb, and Hypericum
 " imperialella Symphytum officinale
 O. avellanella ...nut
 " anglicellahawthorn, sloe
 " betulævorella birch
 " scutulatella? birch
 " torquilella ...sloe
 " Scoticella.....mountain ash
 " Loganella ...birch
 " guttella.....apple, in turned-down leaves
 G. atriplicivorella, h. Atriplex
 C. paripennella in a case, flat, on leaf of birch, rose, sloe, bramble, &c.
 " saturatella, h. broom
 " inflatellaSilene inflata, seeds
 " therinella.....thistles
 " cæspitiella, h. rushes, seeds
 " annulatella ...seeds of Atriplex, and Chenopodium
 " argentulella ...seeds of yarrow
 " virgaureella ...seeds of golden rod
 " laricella, h. ...larch
 " fuscocuprella, h. nut
 " gryphipennella, h. rose
 " viminetella, h. sawlow, and osier
 " artemisicolella, h. fl. of Artemisia vulgaris, and A. campestris
 " melilotella ...seeds of melilot
 " Wilkinsonella birch
 B. somnulentella Convolvulus
 S. pedella.....in fruit of alder
 C. Druriella hop
 " orichalcella ...in leaves of Festuca arundinacea
 " Lienigiella in leaves of Phragmites communis
 C. chærophyllella, b. most Umbelliferae
 " daucella? ...wild carrot
 L. atra hawthorn berries, and shoots of apple
 C. flavicapitella, h. in twigs of hawthorn, in which it bores
 A. profugella ...gentian, seed
 " terminetella...Circæa lutetiana
 A. Treitschkiella dogwood
 F. cinereopunctella, h. Carex glauca
 E. tæniatella, h. Brachypodium sylvaticum
 " MegerlellaBrachypodium, Bromus, Aira, &c.
 T. complanella...oak
 " angusticolella rose
 L. hortellaoak
 " lantanella, h. Viburnum lantana; best collected in Nov.
 " quinqueguttella dwarf fallows
 " irradiellaoak
 " Bremiella.....vetches
 " lautella.....oak
 " cavellabirch
 " pomifoliella...apple, hawthorn
 " corylellanut, birch
 " spinicolella ...sloe
 " faginellabeech
 " torminella ...Sorbus torminalis
 " salicolella.....sallow
 " viminetella ...osier
 " carpinicolella hornbeam
 " ulmifoliella ...birch
 " spinolella.....sallow, willow
 " quercifoliella oak, willow
 " corylefoliella hawthorn
 " Caledoniella...hawthorn, birch
 " viminiella.....osier, sawlow
 " ulicolellafurze
 " alnifoliella ...alder
 " Heegeriella...oak
 " Cramerella ...oak
 " tenellahornbeam
 " acerifoliella ...maple
 " emberizæpennella honeysuckle
 " Frolicheiella...alder
 " Nicelliella ...alder
 " Stettinella ...alder
 " Klemannella alder
 " Schreberella elm
 " tristrigella ...elm
 " trifasciella ...honeysuckle
 " comparella ...poplar
 L. Clerckella ...sloe, apple, cherry, hawthorn, &c.
 P. salignella.....willows
 C. laburnella ...laburnum
 " scitella.....hawthorn, apple, &c.
 " Wailesella ...Genista tinctoria
 B. cidariella.....alder

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B. ulmellaoak	N. arcuosella ...strawberry
" Demaryella ...birch	" graciosella ...hawthorn
" frangulella ...buckthorn	" marginecolella elm
" cristatella, h. yarrow	" alnetella .....alder
N. intimella .....sallows	" glutinosella ...alder
" subbimaculella oak	" continuella ...birch
" trimaculella...poplar	" splendidissimella ...bramble, and
" flosactella ...nut, hornbeam	" dewberry; rarer in wild rasp-
" salicivorella...sallows	" berry
" myrtillella ...bilberry	" luteella.....birch
" microtheriella nut, hornbeam	" regiella.....hawthorn
" betulicolella...birch	" tilæella.....lime
" ignobilella ...hawthorn	P. zophodactylus Erythræa centau-
" argentipedella birch	" rium
" acetosella.....sorrel	" pterodactylus convolvulus
" plagicolella...sloe	" tephrodactylus, h. golden rod, in
" prunetella ...sloe	" shady places
" tityrella .....beech	" serotinus .....Galium Mollugo
" malella.....wild apple	" osteodactylus, h. golden rod
" angulifasciella rose	" microdactylus Eupatorium canna-
" atricolella.....apple, hawthorn	" binum

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All who are bent upon doing "the right thing," as regards pupæ, should not fail to study the Rev. Joseph Greene's "Insect Hunter's Companion." To that gentleman we are indebted for, many years ago, raising the operation of obtaining subterranean pupæ to the dignity of an art. This is the month recommended for a commencement, in earnest, of this work, as a large number of summer, and autumn species have pupated, and other collecting work is on the wane; while it is desirable to get early possession of pupæ before mice, birds, flooding, &c., exercise their destructive influence. The pupæ-hunter is rewarded with specimens in the finest condition, and often with interesting varieties. Most subterranean pupæ are to be found at from 1 in. to 3 in. in depth, close to, or not far from, their food-plants; some species, however, in a light soil go much deeper, particularly *A. Atropos*, *P. Cassinea*, *T. populeti*, *C. vetusta*, and *C. exoleta*. Sandy, or gravelly soils are the most favourable for those species which "go to earth;" and they are seldom found in sticky, or clayey soils, or if so, not far from the surface, if not amongst the first superficial layer of rubbish. The roots of grass, &c., afford a favourite hiding-place to many. Those species which spin up, do so either on, or near, or just beneath their food-plants; or among grass, moss, or rubbish; or on palings, walls, &c., contiguous. So that, as in the case of subterranean pupæ, an abundance of the food-plant peculiar to a species, may sometimes guide us to a successful search.

When pupæ are obtained, they should be preserved in as natural conditions as possible, and should not be exposed to sunshine, or kept in the dry air of a living room. An outhouse, or cellar is to be preferred; but they must be protected from spiders, mice, beetles, &c., and should be kept in sufficiently

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open cages to allow of the free expansion of wings, and of ready examination of the imago on emergence. Too much damp must be guarded against, or mould will exercise a fatal effect. Although emergence may be looked for, often with surprising certainty, at the exact time the imago is due, a warm season will hasten, and a cold one will retard, the period; and some species will remain in pupa for many years, a portion, only, of the same brood, appearing in successive years. Mr. Doubleday suggests that this may often cause the non-appearance of a species, for several years. Among those which, sometimes, remain more than one year in pupa, besides those mentioned in the lists are *S. carpini*, *B. rubi*, *B. callunæ*, *B. roboris*, *N. camelina*, *N. cucullina*, *N. dictæa*, *N. dromedarius*, *N. ziczac*, *N. Chaonia*, *N. Dodonæ*, *E. unifasciata*.

- P. Machaon* on stems of *Peucedanum palustre*; in fens
P. brassicæ ... } to April, on palings,
 " *rapæ* } walls, &c.
 " *napi* }
V. c-album, *b...* among nettle, and
 on walls, &c.
 " *cardui* on, or near thistles
N. Lucina attached to leaf-
 stalk of *Primula*
S. populi to April, sub., at r.
 of poplar, willow, &c.
M. fuciformis ... to April, in a loose
 web, among *Lychnis*, *Scabiosa*,
 &c., on the surface
A. mendica to May, under moss,
 on trees, and on the ground
 " *lubricepeda* ... to May, spun up, on
 trees, palings, &c.
 " *menthrasti* ... to May, spun up, on
 trees, palings, &c.
O. pudibunda ... to April, in dead
 leaves, under moss, &c.
 " *antiqua* from July, in a web,
 on palings, &c.
P. populi spun up, against
 oak, poplar, &c.; near, or just
 beneath, the ground
E. lanestris cocoon on the
 ground, near hawthorn, &c.; s.
 more than one year in pupa
E. versicolora spun up, among
 fallen leaves, at birch; s. more
 than one year in pupa
S. illunaria to March, sub., at
 willow, oak, &c.
 " *lunaria* at sloe, oak, nut, &c.
- O. bidentata* ... to April, under moss,
 on various trees
H. pennaria sub., at oak
P. pilosaria to Dec., sub., at
 oak, and elm
N. zonaria sub., on sand-hills
 " *hispidaria* ... at oak
B. hirtaria to Mar., sub., at
 elm, lime, ash, and fruit trees
A. prodromaria sub., at oak, elm,
 &c.; just beneath the surface
H. abruptaria ... to April, spun up,
 on twigs, or between the forks,
 or beneath the branches, of
 lilac, rose, or privet
N. viridata to April, between
 united leaves of hawthorn, or
 bramble
E. porata to May; fastened to
 leaf of oak
 " *punctaria* fastened to leaf of
 oak, or birch
 " *trilinearia* ... to April; fastened
 to leaf of beech, the margin of
 the leaf often curling over, and
 concealing the pupa
 " *pendularia* .. fastened to leaf of
 birch
C. temerata to April, in slight
 cocoon among sloe, and wild
 cherry, and probably buck-
 thorn
N. pulveraria ... to April, in withered
 sallow leaves, &c.
F. carbonaria ... to April, among dead
 leaves of sallow and birch, on
 the ground

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- L. adustatato April, in a slight cocoon, just beneath the surface; among spindle
- H. rupicaprararia in a web, on the ground; among oak, sloe, &c.
- " leucopheararia on the ground; near oak
- " aurantiaria ...sub., at hawthorn, birch, oak, &c.
- " progemmaria sub., at oak, birch, hornbeam, &c.
- " defoliaria sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
- C. brumatasub., at oak, &c.
- L. multistrigaria sub., about Galium
- E. decolorata ...about Lychnis dioica
- E. venosataabout Silene, and Lychnis
- " consignata ...to April, probably under moss, and loose bark, in apple orchards
- " linariatato April, among yellow toadflax
- " pulchellata ...to April, among the seeds, and dead fl. of foxglove
- " isogrammata to May, about Clematis vitalba
- " fraxinatato April, on ash; under moss, and loose bark
- " nanatato May, about heath
- " vulgatasub., about various plants, and trees
- " expallidata ...to June, about golden rod; s. more than one year in pupa
- " minutatato May, about heath
- " assimilatato April, in crevices; about currant, and hop
- " exiguaabout oak, &c.
- " dodoneata ...about oak; s. more than one year in pupa
- L. viretatato April, in spun-up leaves of privet
- M. ocellataamong Galium; spun up, near the ground
- M. subtristata ...to April, sub., near Galium
- " galiatato May, sub., near Galium
- A. badiatain earthen cocoon, on the ground, beneath dog rose bushes
- " derivatasub., at dog rose
- C. fluviataspun up, in moss, &c.
- C. psittacataspun up, among rubbish at r. of oak, lime, apple, rose
- " miataat r. of oak, alder, birch, poplar, willow; on the surface, among grass, &c.
- " picatato May, in a slight cocoon, on the surface, among, or near chickweed
- " sagittatato June, spun up, about Thalictrum, or on the ground, near; in fens
- C. obliquaria ...among broom
- D. furculato May, spun up, on trunk of willow, or willow
- " bifidato April, spun up, on trunk of poplars
- " vinulaspun up, on trunk of willows, poplars, and willow; 3 ft. or 4 ft. from the ground
- P. Cassineasub., at oak, deep
- C. curtulato Mar., spun up, between dead leaves of poplars, and willow
- N. carmelitasub., at birch
- " trepidato April, sub., at oak; cocoon tough, but not always coated with earth; s. more than one year in pupa
- " Chaoniato April, sub., at oak
- C. orat birch, among dead, or united leaves
- " ocellarisat poplars; near the surface of the ground, or spun against the tree
- " flavicornis ...to Feb., between united birch leaves
- A. megacephala to April, under loose bark of poplar
- " alnibetween leaves of various trees; or inside bramble sticks
- N. typhæ, b. ...in stems of Typha latifolia

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- G. flavago.....inside thistle, and burdock stems, about 3 in. from the ground
- T. piniperda.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles; rarely within 2 ft. of the tree; 1½ in. to 2 in. deep
- T. gothicaat various trees; just beneath the surface
- " leucographa } at r. of low plants; below the surface
- " rubricosa ... } at r. of various trees; just below the surface
- " instabilis ... } just below the surface
- " stabilis } surface
- " opimaat r. of Rosa spinosissima, and dwarf willow; below the sand, on sand-hills, in the N.
- " populetisub., at poplars, especially *Populus nigra*; deep
- " gracilissub., at willows, willows, and low plants
- " miniosaamong fallen leaves, &c.
- " mundaunder moss, at base of oaks
- " crudasub., at oak
- O. macilentia ...sub., in an oval cocoon, at beech, and birch
- H. serenato May, sub., near *Sonchus*, and lettuce
- A. Aprilina, b....sub., at oak
- H. glaucato May, sub., near willow, and birch
- " oleraceato April, sub., near elm, nettle, dock, &c.; also in kitchen gardens
- " thalassina...to May, sub., near honeysuckle, willow, broom, &c.
- C. verbascito April, in a large tough, earthen cocoon, below the surface; near mullein, and figwort
- " lychnitisto April, in an earthen cocoon, near white, and black mullein; s. 2 yrs. in pupa
- " asteristo April, near golden rod, &c.; s. 2 yrs. in pupa
- " gnaphaliito April, near golden rod
- " absynthiito April, near worm-wood
- " chamomillæ near chamomile, &c.
- " umbratica ...to May, sub., near *Sonchus*, &c.
- H. marginata ...sub., near *Ononis procurrens*
- A. myrtillispun up, in heath
- B. argentulato May, among grass, on the ground
- B. parthenias ...to Mar., at birch, in crevices of bark, or on the ground
- P. pterodactylus on *Convolvulus*

IMAGOS]

Although the freshly-emerged species this month, are not numerous, many of them are very local, or rare. *L. Boetica*, which has occasionally been taken recently, may possibly be found more frequently if diligently sought for, as it may have been overlooked among the common *L. Alexis*. *S. convolvuli*, *D. lineata*, and *C. celerio* occasionally come to flowers, and have been taken at rest in strange places, and on strange substances. The beautiful *D. pulchella* should be sought for in the day time in stubble-fields. *S. sacraria* is also a day-flyer, but frequents no special locality. The grand blue underwing, *C. fraxini*, has been found at rest. Some of the hibernating species, which may be found this month, are also rare. The bait of sugar should be continued to be employed this month, until the ivy blossoms come out. On hills, and in sunny spots, these blossoms expand much earlier than in colder, and damper situations.

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The Collector may be reminded that the character of the locality he is working, and the nature of the species he is seeking, must largely determine his method of search and capture, not forgetting the fact that however far Moths may fly, they generally return, for rest, to, or near, what were their food-plants when larvæ. All kinds of places form a harbour for insects. The beating-stick should be energetically applied to heaps of dry rubbish, masses of grass, reeds, weeds, &c., tangled under-growth, haystacks, and thatch (the latter harbours many *Depressariæ*, &c.); while "scarecrows," tree-trunks (especially those exuding sap), leaves, flowers, blackberries, fallen fruit, palings, posts, fences, walls, heaps of stone or sticks, logs of wood, outhouses, eaves, &c., all furnish lodgment-space, and a means of concealment, to various species, and should be vigilently scanned. Indeed, vigilance is especially required, for many species closely resemble the substances on which they are in the habit of resting.

"Second appearances" are this month becoming more common than before. Among the Sphinges and Bombyces, especially, it is not unusual to find two series of transformations in the twelve-months; but by a wise provision of nature, the development of a portion of the brood is sometimes retarded. With some of the *Geometrinæ* three broods are regularly obtained in confinement; while some of the Bombyces, *Psychidæ*, and *Coleophoræ*, require twenty-four months, and even more, to enable them to complete their round of metamorphoses. And sometimes even the date of their advent in the winged state is further delayed by their remaining in the chrysalis state for two, or three, and sometimes as many as four, or five seasons.

- | | |
|--|--|
| G. rhamni, h. ...woods, &c. | A. Atropos .....at rest, on palings, &c. |
| C. Edusa, h. ....clover fields, railway banks, &c. | S. convolvuli ...at fl., at dusk |
| " Hyale, h. ....in clover fields, &c. | D. euphorbiæ, m. on the coast |
| A. Latona .....fields, woods, &c. | " lineata .....at fl., at dusk |
| V. c-album, 2., h. at blackberries, and fl.; may be found hanging to underside of leaves, in dull weather | C. celerio .....at fl., at dusk |
| " urticæ, h. | M. stellatarum, 2., h. at fl.; flies by day, and in the evening, and s. at moonlight |
| " polychloros, h. about elms | D. pulchella .....in stubble fields; a day flyer |
| " Antiopa, h. ...attracted by ivy fl., and cossus-infected trees | C. plantaginis, s., 2 |
| " Io, h. ....at fl. | O. antiqua |
| " Atalanta, h. ....at fl., and fallen fruit, in orchards | D. coryli, s. |
| " cardui, h. ....at fl. | T. cratægi .....comes to l. |
| C. Pamphilus ... | R. cratægata, 2. hedges, &c. |
| P. Phloæas .....at fl.; at rest, on sorrel, &c., at night | E. alniaria |
| L. Boetica | " tiliaria .....comes to l. |
| " Alexis .....at fl.; may be found on cold, windy days, and at night, at rest, on grass stems, &c., in hollows, on hills | " fuscantaria ...comes to l. |
| | " erosaria |
| | " angularia .....on trees; comes to l. |
| | H. pennaria |
| | N. zonaria |
| | P. baiularia, s.a second brood s. appears in confinement |

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- A. promutata, 2.
 " immutata, s., 2.
 S. Sacraríaflies by day; has
 been taken at fl., at sugar, and l.
 O. dilutata
 " filigrammaria
 T. variata, h. ...
 " firmata
 M. galiata, 2. ...
 C. fluviata, h. ...comes to l.
 P. polygrammata damp meadows; very local
 C. psittacata, h. comes to l.
 " miata, h.
 " picata, 2.s. in confinement
 " immanata ...
 E. cervinaria ...
 A. plagiata, 2. ...
 C. spartiata
 P. lacertula, s., 2. beaten, from birch
 P. bucephala ...at rest
 D. cæruleocephala at light
 T. batis, 2.
 C. diluta
 B. algæ
 A. psi., s.
 " alni
 L. vitellina
 " albipuncta ...at fl.
 " extraneaon scabious fl.
 " l-album
 N. fulvas. abundant in one
 corner of a meadow
 " typhæin marshes
 " lutosain marshes
 G. flavago, s. ...
 H. nictitansat ragwort, and
 thistle fl.
 " petasitisamong butter burr
 " micaceacomes to l.
 A. Australisamong grass; comes
 to l.
 H. popularis, b. comes to l.
 " hispida
 C. graminis, b. on commons; s. at
 ragwort, and thistle, fl.
 L. testaceacomes to l.
 " cespitishides in grass, by
 day; comes to l.
 M. literosa
- C. Haworthii ...
 C. cubicularis ...hides in thatch
 A. Puta, h.
 " suffusa, h. ...
 " saucia, h. ...at ivy; comes to l.
 " agathinabeaten, from heath,
 in the day time; flies over the
 fl., and rests on them, at night
 " præcoxon sand-hills, by the
 coast
 N. glareosaon heaths
 " c-nigrumcomes to l.
 " Dahlii
 " neglectaon heaths
 O. lotaat fl., at night
 " macilentaat ivy, and yew
 berries
 A. rufinaat ivy
 " pistacinaat ivy
 " lunosacomes to l., and ivy
 " lituraat ivy
 C. vaccinii, h. ...at ivy
 " spadicea, h. at ivy
 " erythrocephala, h.
 S. satellitia, h.at ivy
 D. rubiginea, h. at ivy, and yew
 berries
 H. croceago, h. at fl.
 X. citrigoat l., and ivy; this,
 and the two following, may be
 found on the leaves, and twigs
 of lime trees, at night
 " cerago
 " silago
 " auragoat ivy
 " gilvagoat fl.
 " ferrugineaat fl.
 C. xerampelina ...at l., and at rest, on
 ash trunks
 T. retusacomes to l.
 E. fulvago, b. ...at heath fl.
 E. ochroleuca, b. at fl.; rests on knap-
 weed, and thistles, &c.
 P. chion tree trunks
 " xanthomista...
 " flavocincta ...at ivy; rests on
 walls, &c.
 D. templi, e., h. usually found by
 turning over stone-heaps, in
 elevated districts; comes to l.

IMAGOS]

SEPTEMBER

- E. lutulenta, b. ...at heath fl.
 " nigra.....at ivy
 " licheneaon the coast
 M. oxyacanthæ...at fl.
 A. Aprilina
 P. meticulosa, 2. at ivy
 " empyreaat ivy
 A. occultaat rest, early in the morning; unquiet when boxed
 H. protea.....on tree trunks
 " peregrina.....
 C. solidaginis ...at rest
 C. vetusta, h. ...at ivy
 " exoleta, h. ...at ivy
 X. lambda, e. ... [trunks
 " furcifera, h. ...at ivy, and on tree
 " rhizolita, h. at ivy, and on tree trunks
 " semibrunnea, h. at ivy
 " petrificata, h. at ivy
 H. marginata ... [herbage
 " peltigeramay be started from
 C. armigeraat ivy
 A. luctuosaflies in the sunshine, over fl., in clover fields, &c.
 P. gamma.....
 G. libatrix, h. ...in cellars, and on palings, trees, &c.
 A. pyramidea ...
 " tragopogonis hides in windows
 S. anomalaat heath fl., and flying along hedgerows, at night; remains fine but a very few days after emergence
 C. fraxiniat rest on walls, &c.
 " nuptaat rest, on walls, tree-trunks, &c.; soon alarmed when approached; comes to l.
 H. rostralis, h. ...in gardens, &c.
 H. tarsipennalis, 2. woods
 P. fimbrialiscomes to l.
 " farinalis 2? ...at rest in, and near stables, corn stores, &c.
 " glaucinalis ...beaten from thatch; also at l.
 B. asinalis, 2. ...comes to l.
 E. catalaunalis...at fl.
 S. ferrugalisat fl., and sugar; flies at dusk, and can be beaten from hedges
 S. decrepitalis, 2?
 S. hybridalis, 2. among grass, and clover
 S. murana among heath
 " coarctalis, h. on mossy walls
 E. ocellæa, b., h. comes to l.
 C. tristellus
 T. Pryorella.....
 E. ficellain corn, and seed warehouses, among oilcake, &c.
 N. angustella, 2
 M. cephalonica
 N. genistella, h. Ulex europæus
 G. cerella
 S. Revayana, h. woods
 L. literanaon oak trunks
 " scabranaamong elm
 P. sponsanawoods
 " variegana ...hedges
 " cristanaamong willows, and hawthorn
 " Hastianaamong willows
 " maccana
 " umbrana
 " ferruganawoods
 " tristana
 " lipsiana
 " comariana ...boggy heaths, & fens
 G. nœvanaamong holly
 P. crenana, h. ...on most Northern heaths
 P. ophthalmicana among aspens
 " occultanaamong young firs
 " Solandriana...
 " sordidanaamong alder, infens, and marshes
 E. bimaculana ..woods
 R. pinicolana ...among Scotch fir
 D. acuminatana
 C. ulicetanaamong furze
 X. Fabriciana ...
 " pariana
 E. anthemidana, 3. chalk districts
 L. phryganella...
 T. pelliionella ...common, in houses
 " fuscipunctella
 " pallescentella in warehouses, and poulterer's shops
 Y. evonymella ...among Prunus padus
 H. radiatella, h.

IMAGOS]

SEPTEMBER

- Y. sylvella
 " asperellaamong apple
 H. scabrella.....among crab apple ;
 rests on tansy fl., at dusk
 P. caudella, h.among Eunonymus
 europæus
 D. pallorella, h. among brushwood
 umbellella ...among furze
 arenella, h. ...
 " propinquella, h.
 " subpropinquella, h.
 " alstræmeriella, h. among Conium
 " ciniflonella, h. Rannoch
 " vaccinnella, h. Lytham
 " capreolella, h.
 " hypericella ...among Hypericum
 " conterminella, h. among willows
 " angelicellaamong Angelica
 sylvestris
 " ocellellaamong willow
 " Yeatesiella ...in fens, &c.
 " applanella, h.
 " ciliella, h. ... [vulgaris
 " granuloseella... among Anthriscus
 " rotundella ...Howth, Lancashire,
 Folkestone, &c.
 " albiguttella, h.
 " chærophyllorella, h.
 " nervosella ...
 " badiella
 " discipunctella
 " heraclella, h.
 " olerella near Hazlemere,
 beaten from thatch
 G. hippophaella
 " cuneatella ... [slack
 " LyellaCastle Eden, Wither-
 " celerellaon coast sand-hills
 " costella..... among Solanum
 dulcamara
 " vicinellaBelfast, Brighton
 " junctellaWitherslack, Lake
 District, &c.
 " Hubnerella ...Carlisle, nr. Wake-
 field, Manchester, &c.
 " paupella near Lewisham,
 Folkestone, Lewes
 C. conscriptella ..Witherslack
 B. chenopodiella
 A. betulellaCastle Eden, and
 High Force ; beaten out
 R. Erxlebenella, b.among lime
 underwood
 A. semitestacella, b. among beech
 " spiniella, b.among mountain
 ash, on moors
 Z. fasciapennella the Pentlands
 G. stigmatella ...among willow, &c.
 " stramineella...Castle Eden, Lake
 District, and Stirlingshire
 " hemidactylella
 " falconipennella near London
 " semifasciella
 " populella, h.
 " elongella among alder, and
 yew
 " phasianipennella, h.
 " ononiellaCambs, Mickleham
 C. Brogniartella Yorks, Lake
 District, Cambs
 " cuculipennella, h. among privet
 " citrinella, b.
 B. somnulentella
 L. epilobiella, h. among Epilobium
 hirsutum
 " decorella, h. among Epilobium
 " subbistrigella, h. ... Witherslack,
 Worthing, Devon
 L. trifasciella ...among honeysuckle
 L. Clerckella, h. among sloe, and
 fruit trees
 " padifoliella ...
 P. suffusella, h. among willow
 " salignella, h. among willows, near
 London
 B. ulmella.....among oak
 P. acanthodactylus on heaths
 " punctidactylusLake District,
 Birkenhead, Bristol, Farnham
 " pterodactylus, h.among Convol-
 vulus
 " monodactylus among Convolvulus
 A. polydactyla, h. ...among honey-
 suckle, and in windows

OCTOBER

OVA]

- V. polychloros, s. on elm ; s. sawlow, and poplar ; in regular batches, globular, glassy, brownish
- T. quercuson oak twigs
- " w-albumon wych elm, also elm ; on the twigs
- " prunion sloe twigs
- " betulæon sloe [sorrel
- P. phlœason dock, ragwort,
- L. Ægonon Ornithopus perpusillus ; white
- L. Argiuluson ivy, fl. ; white
- H. commaon trefoil, and other Leguminosæ
- L. disparon sloe, hawthorn, fruit trees ; on the trunks, in a heap, covered with down
- " monachaon oak, beech, fir, birch, apple, &c.
- T. cratægito March, on hawthorn ; also s. sloe, sawlow, birch, oak
- B. neustriaon hawthorn, sloe, fruit trees ; in batches, round twigs, and branches
- " castrensis ...on Artemisia maritima, Daucus maritimus, &c.
- E. vespertaria ...on nut [sallow
- " apiciariaon poplar, willow,
- C. elinguarua ...on oak, honeysuckle, hawthorn, sloe ; also heath, bilberry, &c.
- H. pennariato April, on oak
- F. pinetariaon bilberry
- E. subciliata.....on maple ; at foot-stalk of leaf
- M. rubiginata ...on alder ; large
- S. vetulataon buckthorn
- C. immanata.....probably on alder, and other trees, and strawberry, bilberry, &c. ; large
- " prunata.....on currant, gooseberry, sloe ; on the bark, large
- " testataon heath, birch, sawlow, poplar, &c. ; singly, large
- C. populataon bilberry, whortleberry, poplar ; globular, large, yellow
- " fulvataon dog rose ; rose-pink, large
- " pyraliataon Galium, and hawthorn ; large
- " dotataon black, and red currant ; large
- C. spartiatato April, on broom
- T. chærophyllata on Anthriscus sylvestris, and Bunium flexuosum
- D. cæruleocephala on hawthorn, sloe ; ragged
- A. Australis on succory, Poa annua, &c.
- C. xerampelina...on ash, probably in the chinks of the twigs, and the buds
- T. subtusaupon twigs of poplar
- " retusaon sawlow, willow, poplar ; upon the axils of the leaves
- O. lotaon willow, and sawlow ; upon the axils of the leaves ; hatch in the spring
- A. pistacinaon buttercup, &c.
- " lunosaon grasses
- P. chion dock, hawthorn, sawlow, and probably lettuce, sowthistle, tea tree, &c.
- " flavocincta to Mar., on dock, chickweed, groundsel, mint, &c. ; in gardens, on everlasting pea, plum, &c.
- E. lutulenta on Lithospermum arvense, and probably other low plants
- " licheneaon ragwort, and probably other plants ; on the coast
- P. empyreaon pilewort ; on the leaf-stalks
- H. proboscidalis on nettle ; rather large, pale yellow

LARVÆ]

OCTOBER

Many of the larvæ met with this month hibernate. The others will be found nearly full-fed, and may be expected to change this month, or the next.

The eggs of *C. xerampelina* often hatch this month. The young larvæ feed only by night, on ash, though they will eat hawthorn, and guelder rose. Sometimes they attain a fair size before they hibernate; but at others they remain quite small; and occasionally even the larvæ do not hatch until November or December. Then it is, when the buds of the ash being small, and hard, the hawthorn, or guelder rose may be found useful as a substitute.

- L. sinapis* *Vicia cracca*, and
 Orobus tuberosus
P. cratægi, h. ... hawthorn, sloe, and
 orchard trees
A. Paphia, h. ... dog violet, and sweet
 violet
 " *Aglaia*, h. ... dog violet, and sweet
 violet, and wild heartsease
 " *Niobe*, h. ... dog violet, and sweet
 violet
 " *adippe*, h. ... dog violet, and sweet
 violet
 " *Latona*, h. ... dog violet, and sweet
 violet, and wild heartsease
 " *Euphrosyne*, h. } in a web at r. of
 " *Selene*, h. } violets, &c.
M. Artemis, h. ... Scabious, plantain;
 in batches, under a web under
 leaves; also eats woodbine, &c.
 " *Cinxia*, h. ... *Plantago lanceolata*
 " *Athalia*, h. ... narrow-leaved plan-
 tain, foxglove, wild germander
L. sibylla, h. ... honeysuckle; under
 a leaf, suspended by silk, from
 a twig
 A. Iris, h. sallow, poplar
 A. Galatea, h. ... timothy grass, &c.
 E. Epiphron, h. probably on *Nardus*
 stricta, and small rushes; in
 mountain bogs
 T. rubi bramble, buds, and
 fl.; also probably broom, and
 Genista
 P. Phleas, h. ... dock, ragwort, sorrel
 L. Adonis, h. ... *Hippocrepis comosa*,
 &c. [&c.
 " *Corydon*, h. ... *Hippocrepis comosa*,
 A. Atropos potato leaves, &c.
 (See last month)
 D. galii *Galium fuschia*, &c.
 (See last month)
- S. tipuliformis*, h. in the wood of
 currant bushes
C. ligniperda ... in the wood of
 various trees. (See last month)
C. miniata, h. lichen, on oak
 (*Lichen caninus*); also withered
 sallow, oak, alder
L. mesomella, h. lichens; will also
 eat sallow, and heath
 " *molybdeola*, h. lichens
 " *griseola*, h. ... lichens, on poplar;
 also withered sallow, &c.
D. coryli, s. beech, nut, birch,
 alder, oak, willow; generally
 beaten from beech
R. cratægata, h. hawthorn, sloe
A. prunaria, h. sloe, beech, broom,
 sallow, hawthorn, plum, &c.
S. illustraria oak, birch, ash,
 beech, maple
A. betularia oak, birch, elm,
 hawthorn, elder, beech, moun-
 tain ash, &c.
E. trilinearia ... beech
 " *omicronaria* maple; s. beech
A. luteata maple
A. herbariata, h. dried plants, in her-
 baria, and in herbalists' shops,
 &c. Tansy has been found to
 be eaten, where the species has
 occurred
C. exanthemaria sallow, alder
S. clathrata, h. saintfoin, lucerne, &c.
A. strigillaria, h. heath, broom
A. citraria, 2. ... wild carrot, trefoil,
 &c.; generally on the coast
L. olivata, h. ... *Galium Mollugo*
E. unifasciata ... *Odontites rubra*, on
 the capsules, and seeds
E. subfulvata ... *Achillea millefo-*
 lium, and *chrysanthemum*

LARVÆ]

OCTOBER

- E. arceuthatajuniper, and
savine
" castigatagolden rod, heath,
nettle, Angelica, &c.
" expallidatagolden rod, fl. ; will
also eat Michaelmas daisy,
&c.
" absynthiata ...fl., and seeds of rag-
wort, Eupatorium cannabinum,
Artemisia vulgaris, Achillea
millefolium, golden rod, &c.
" knautiataKnautia arvensis, fl.
and seeds
" assimilata.....black currant, hop
" exiguabarberry, hawthorn,
black currant, ash, alder,
sallow
T. simulatajuniper
Y. elutata, h.nut, saw, bilberry,
alder
M. montanata, h. primrose
C. munitata, h. groundsel
P. vitalbata, 2. Clematis vitalba
S. undulatasallow, poplars ;
between leaves
C. russata, h.strawberry, birch,
hawthorn, saw, &c.
" suffumata, h. Galium Mollugo,
and ragwort ; hibernates full-
fed to March
E. bipunctaria, h. Lotus corniculatus,
clover, &c.
A. plagiata, h.... Hypericum perfo-
ratum, fl.
D. falcula birch ; also oak,
alder, willow, poplar
" unguicula.....beech
D. bicuspisalder, beech, birch
C. fluctuosa birch ; between
leaves
B. glandifera, h. lichens, on walls
" perla, h.lichens, on walls
A. tridens.....hawthorn, sloe, rose,
willow, saw, mountain ash
L. vitellina, h....grasses
" putrescens ...grass
" littoralis, h..... on Ammophila
arundinacea ; on the coast ;
burrows 7 or 8 inches in the
sand. Will also eat Carex
L. impura, h. ...Carex, and Dactylis
glomerata. Before h. the larva
rolls the grass up, to form "a
house," by day ; afterwards,
lives inside the stem, and feeds
at night only [pitosa
" pallens h. ... Deschampsia cæs-
" phragmitidis, h. common reed, in
the young stems ; in marshes,
and fens
N. lutosa, h.....in stems of common
reed, near the r. ; feeds during
winter, in mild weather
A. Australis, h. Cichorium intybus,
Poa annua, and other plants
P. leucophæa, h. tufts of grass ; on
commons, and in woods
A. basilinea, h. on the immature
grains of growing wheat ; after
h., in spring, on various plants
C. Morpheus ...Sedum telephium,
sallow, bramble, docks, teasle,
and other low plants
A. valligera, h. . roots of grasses ;
chiefly on the coast
" Putadandelion, lettuce,
carrot, r., knotgrass, &c.
" saucia, h.plantain, dock, and
other low plants
" lunigera—? will eat knot-
grass, &c.
" ripæCynoglossum offic-
nale ; on the coast ; burrows 7,
or 8 in. in the sand
" porphyrea, h. heath
T. ianthina, h. Primula, and other
low plants ; also broom, &c.
" fimbria, h. ...birch, saw, oak,
ash, broom, primrose, &c.
" subsequa, h. low plants
" Orbona, h.low plants, and
broom ; when young, on saw
buds
" pronuba, h....dock, &c.
N. c-nigrum, h. pea stems, and low
plants
" conflua, h. ...various low plants,
including Silene acaulis
" Dahlii, h.low plants ; s. feeds
up without h. in mild winters

LARVÆ

OCTOBER

- N. umbrosa, h. dock, &c. ; feeds in mild winters
 " neglecta, h. ...heath, birch, willow, and low plants
 " xanthographa, h. plantain, &c. ; hides under stones
 A. lunosa, e., h. grasses ; more especially in elevated places ; may be found concealed under stones
 C. xerampelina, h. ash ; will also eat hawthorn, and guelder rose
 D. carpophaga, s. Lychnis, and Silene inflata, young seeds
 E. lutulenta, h. ...Lithospermum arvense, and other low plants
 A. herbida, h. ...dock, and other low plants
 H. suasa, s. plantain, lettuce, knotgrass, &c.
 " pisibrake fern, broom, Scabious, grass, Carex, willow, birch, mountain ash, &c.
 H. proboscidalis, h. nettle
 S. emortualis ...oak
 " grisealisSisymbrium Sophia, oak, &c. ; the larva does not change until the spring
 B. lupulinalis ...in stems of hop
 " asinalis, h. ...madder, fl., and young seeds
 E. sambucalis ...elder, convolvulus
 P. forficatiscabbage, horse-radish, &c.
 M. polygonalis...Ulex nanus, fl. ; on heaths, &c. ; Genista ?
 C. phragmitellus, h. common reed
 M. cribrella, h.in thistle stems
 H. nimbellachamomile, and other composite fl.
 " nebulella, b.heads of thistles ; also China aster
 C. bistrigella ...alder, between the leaves
 P. interpunctella ... in seed stores, grocer's warehouses, &c., on grain, figs, dried insects, &c.
 P. palumbella, h. Polygala
 M. alveariella, h. wax, in beehives
 T. ministrana ...willow, nut, birch, buckthorn
 A. Conwayana...fruit of privet, nut, (?) ash (?)
 C. musculana ...hawthorn, &c.
 P. siculanaMyrica gale
 " comptana ...Potentilla
 " Mitterpacheriana elm, oak
 G. campoliliana in willow leaves
 " geminana ...Vaccinium, apple, s.
 E. fenana, h.in r. of Artemisia
 S. Weeberana, h. under bark of plum, and other fruit trees
 C. strobilana, h. cones of spruce
 " argyranamoss, and bark of oak, &c.
 " hyrciniana, h. spruce fir
 " vacciniaria ...Vaccinium, and Berberis
 H. fimbriaria ...rotten oak wood
 E. pisanain pea pods, and vetches [fir
 S. coniferana, h. under bark of Scotch
 " Leplastrierana, h.in stems of cabbage
 " redimitana ...oak
 " regiana, h.under sycamore bark
 " orobanain pods of Vicia cracca, V. sylvatica, Orobus tuberosus, and Genista tinctoria
 D. politana, h. Achillea millefolium, r.
 " plumbana.....pods of vetches (?) &c.
 " plumbagana..... Achillea millefolium
 C. Albersana ...honeysuckle
 " fulvanaheads of Centaurea scabiosa
 " Scopoliaria ...Centaurea heads
 æmulanain fl. of golden rod
 L. Servillana ... shoots of woolly-leaved willows
 E. roseana, h.seeds of teasel
 " subroseana?...Solidago, fl.
 " implicitana ...Solidago, fl. Pyrethrum, Gnaphalium, &c.
 " anthemidana Erigeron acre, fl.
 A. maritima in stems, and r. of Eryngium maritimum
 C. Francilloniana, h., in stems of wild carrot

LARVÆ]

OCTOBER

- C. dilucidana ...in stems of parsnip
 " Smeathmanniana Anthemiscotula
 " stramineana Centaurea heads
 " altermanaCentaurea scabiosa, heads
 L. salicellasallow, alder, maple, rose, Cornus sanguinea, Potentilla anserina, &c.
 T. pseudo-bombycella, h. lichen, on oak trunks
 S. inconspicuella, h. on tree trunks, and palings
 T. misella.....in dried stems of beans, and unthrashed wheat
 " ganomella, h. in birds' nests
 " merdellain furs
 " biseliella, h. in birds' skins, hair seating, &c.
 I. Zinckenella ...birch
 " Oehlmanniella, h., in a flat case, under fallen leaves
 A. fibulellain a flat case, on leaves of Veronica chamædrys
 " Degeerella, h., wood anemone
 S. pyrella..... hawthorn, apple, pear, &c.
 Y. viginipunctella Sedum telephium
 A. decemguttella Lithospermum
 G. malvellahollyhock, seeds
 " notatellasallow
 " obsoletella ...in stems of Chenopodium
 " bifractella, h. Inula dysenterica, and I. conyza, seeds
 " cerealella, h. in grains of wheat, and barley
 " næviferella ...Atriplex, and Chenopodium
 " Hermannella, Atriplex, and Chenopodium
 " brizellaStatice armeria, in fl. stems
 " suboccellella... Origanum vulgare, seeds
 P. lappella knapweed, and burdock, seeds
 " Metzneriella, h. Centaurea nigra, heads
 " carlinella, h. Centaurea nigra, and thistle heads
 P. neurapterella, h. in heads of Cirsium acaule
 C. pseudo-spretella, h. dried fruit, peas, and other seeds; also hams, &c.
 A. autumnitella Solanum dulcamara
 G. Kollariella, b. mining leaves of broom
 O. avellanella ...nut
 " betulævorella birch
 C. paripennella...in a case, flat on leaf of birch, rose, sloe
 " salicornella, h. Salicornia herbacea
 " pyrrhulipennella, h. heath
 " discordella, h. Lotus corniculatus
 " genistæcolella, h. Genista anglica
 " annulatella ...seeds of Atriplex, and Chenopodium
 " salinella Atriplex portulacoides
 " cacuminetella seeds of Stellaria graminea
 " argentulella...seeds of Achillea millefolium
 " virgaureella ...seeds of golden rod
 " juncicolella, h. heath
 " solitariella, h. Stellaria holostea
 " melilotella ...seeds of melilot
 A. æratella, h....in galls, on knotgrass
 E. apicipunctella, h. in Aira
 " trapeziella, h. in Luzula pilosa
 T. complanella...oak
 " angusticolella rose
 " dodonæella, h. in oak
 L. roborellaoak
 " quinqueguttella dwarf willows
 " Bremiella.....vetches
 " insignitella ...in a clover
 " lautella.....oak
 " vacciniella ...whortleberry
 " Messaniella ...oak, evergreen oak, chesnut, hornbeam, beech
 " Dunningiella nut
 L. Clerckella ...sloe, apple, cherry, hawthorn, &c.
 C. spartifoliella...under bark of broom
 " laburnella ...
 N. atricapitella...oak
 " anomalella ...rose

LARVÆ]

OCTOBER

- N. perpygmæella hawthorn
 " pomellaapple
 " oxyacanthella hawthorn
 " viscerellaelm
 " catharticeella...buckthorn
 " Septembrella Hypericum
 " cryptellaLotus
 " Weaverella, h. whortleberry
 " subbimaculella oak
 " argyropezella aspen
 " trimaculella ...poplar
 " floslactella ...nut, hornbeam
 " salicivorella ...sallows
 " myrtillella ...bilberry
 " microtheriella nut, hornbeam
 " betulicolella...birch
 " argentipedella birch
 " tityrella.....beech
 " angulifasciella rose
- N. atricolella ...apple, hawthorn
 " arcuosella.....strawberry
 " splendidissimella bramble, and
 " dewberry; rarer in wild rasp-
 berry
 " apicellaaspen
 " ruficapitella...common oak, and
 evergreen oak
 " castanella.....Spanish chesnut
 " aeneofasciella agrimony, and tor-
 mentil
 " aucupariella...mountain ash
 " ulmivorella ...elm
 " tilæella.....lime [bage rose
 " centifoliella...dog rose, and cab-
 P. zophodactylus Erythræa centau-
 rium
 " microdactylus Eupatorium canna-
 binum

PUPÆ]

- P. Machaonon stems of Peu-
 cedanum palustre; in fens
- L. sinapisto April, on stems
 of Vicia cracca, and Orbus
 tuberosus; in woods
- P. brassicæ } on palings, walls,
 " rapæ..... } &c.
 " napi..... } &c.
- L. Argioluson ivy; on the
 underside of a leaf. The larva
 is s. found this month, feeding
 on the fl.
- S. ocellatusto April, sub., at
 willows, poplars, &c.
 " populito April, sub., at
 poplars, willows, &c.
 " tilizæto April, sub., at
 elm, lime, beech, &c.
- M. stellatarum.. nr. Galium Mollugo;
 just below the surface
- L. asellusto June, spun up, on
 a leaf
 " testudo.....on oak; spun up, on
 a leaf
- A. mendicaunder moss, on trees
 bordering ditches
 " lubricepeda } spun up, on palings,
 " menthrasti } trees, &c.
- A. urticæto May, under moss,
 on trees, and among willow
 herb, &c.; in wet places
- O. pudibunda ...in dead leaves, under
 moss, &c.
- D. corylispun up, under moss,
 on beech, and other trees
- P. populispun up, against
 oak, poplar, &c., near, or just
 beneath, the ground
- E. lanestriscocoon, on the
 ground, near hawthorn, &c.
- E. versicolora ...spun up, at birch,
- S. carpinito April, cocoon
 amongst leaves, heath, &c.
- E. dolobrararia ...to May, under moss,
 on oak, &c.
- S. illunariasub., at willow, oak,
 &c.
- " lunaria.....at sloe, oak, nut,
 &c.
- O. bidentata.....under moss, on
 various trees
- P. pilosariasub., at oak, and elm
- N. zonaria.....sub., on sand-hills
- " hispidaria.....at oak
- B. hirtaria.....sub., at elm, lime,
 ash, and fruit trees

[UPÆ]

OCTOBER

- A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " betulariato April, sub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet
 T. consonaria ...to April, undermoss, at r. of beech, oak, birch
 " crepuscularia to Jan., under moss, on alder, birch, elm, poplar, willow; or in bark crevices
 " biundularia ...to Mar., spun up, on oak, and birch
 " punctulata ...to April, undermoss, on birch, and alder; or in bark crevices
 •I. lactearia ...to May, spun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctaria.....fastened to leaf of oak, or birch
 " trilinearia ...fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 A. Blomeraria ...sub., at wyth elm; in a weak, earthen cocoon
 E. heparata to April, among moss, &c., on alder
 C. exanthemaria to May, spun up, under leaves of willow, and alder
 M. liturata to April, in open places, in fir woods, and on the margins, at 1 in., to 2 in. deep, rarely within 2 feet of the tree
 N. pulveraria ...to Mar., in withered willow leaves, or moss
 F. carbonaria ...among dead leaves of willow, and birch
 " piniariato March, at Scotch fir, and larch; in open places in woods, rarely within 2 feet of the tree, at 1½ in. to 2 in. deep
 A. ononariaamong, or near rest harrow; on the surface
 H. rupicaprararia in a web, on the ground, among oak, sloe, &c.
 H. leucopheararia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. æsculariato Feb., sub., at elm, oak, lime, sloe, hawthorn
 C. brumatasub., at oak, &c.
 L. multistrigaria sub., about Galium
 E. albulatato April, within the spun-up sepals of yellow rattle
 " decolorata..... about Lychnis dioica
 " unifasciata ...among, or near Odonites rubra
 E. venosataabout Silene, and Lychnis
 " consignata ...probably undermoss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata about Clematis vitalba
 " fraxinataon ash; under moss, and loose bark
 " innotata spun up, among Artemisia campestris
 " nanataabout heath
 " vulgatasub., at various plants, and trees
 " minutataabout heath
 " assimilata ...in crevices, about currant, and hop
 " exiguaabout oak, &c.
 L. sexalatato April, in oval cocoon, among fallen leaves of willow
 M. ocellataamong Galium; spun up, near the ground. The larva s. remains during winter
 M. subtristata ...sub., near Galium
 " galiatasub., near Galium
 A. sinuatato May, in earthen cocoon; on the ground, among Galium
 " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose

PUPÆ

OCTOBER

- C. sagittata*spun up, among *Thalictrum*; or on the ground, near; in fens
- E. lineolata*to April, cocoon, attached to *Galium verum*, on coast sand-hills; below the surface
- C. obliquaria* ...among broom
- D. bicuspis*to April, spun up, on birch trunks, in the S.; alder in the N.; rarely above 2 feet from the ground. Resembles a Brazil nut
- " *furcula*spun up, on trunk of willow, or saw
- " *bifida*spun up, on trunk of poplars
- " *vinula*spun up, on trunk of willows, poplars, and saw; three or four ft. from the ground
- S. fagi*to May, spun up, among leaves of beech, oak, birch, elm; s. at r.
- P. cassinea*sub., at oak; deep
- P. bucephala* ...to May, sub., at various trees
- C. curtula*to Mar., spun up, between dead leaves of poplars, and saw
- " *reclusa*to May, spun up, among dead leaves of willows, poplars, willows
- P. palpina*to June, in cocoon, at willows, and poplars; on edges of streams, on the ground, or under sods
- N. camelina*to May, at various trees, in a slight cocoon
- " *cucullina*to May, at maple, and sycamore; under moss, &c.
- " *carmelita*sub., at birch
- " *dictæa*to May, in large cocoon, at poplars, and willows; under a leaf, or sod
- " *dictæoides* ...to May, at birch; in a slight cocoon, under a leaf, &c.
- " *dromedarius*...to May, at birch, alder, nut; in a slight cocoon, under a leaf, &c.
- N. ziczac*to May, sub., at poplars, saw, willows
- " *trepida*sub., at oak; cocoon tough, but not always coated with earth [oak]
- " *Chaonia*to April, sub., at
- " *Dodonea*to May, sub., at oak, and birch
- T. batis*to May, near bramble, and wild raspberry
- C. duplaris*to May, between united birch leaves
- " *fructuosa*to May, among birch leaves
- " *or, b.*at birch, among dead, or united leaves
- " *ocularis, b.* ...at poplars, near the surface of the ground, or spun against the tree
- " *flavicornis* ...between united birch leaves
- D. Orion*to May, at birch, and oak; in a cocoon of gnawed bark, or rotten wood
- A. tridens*to May, spun up, in crevices of bark, at hawthorn, sloe, rose, willow, mountain ash, saw
- " *psi*to May, in bark crevices, of various trees
- " *leporina*to May, in excavations, in the bark of birch, poplar, alder, saw
- " *aceris*to May, spun up, among fallen leaves, and under loose bark of sycamore, horse chesnut, maple, birch, and s. oak [bark]
- " *megacephala* at poplar, under the
- " *strigosa*to May among, dead leaves, of hawthorn; or rubbish, or decayed wood; s. sub.
- " *alni*between leaves of various trees; or inside bramble sticks
- " *ligustri*to May, spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top-stones of walls, against the tree

PUPÆ]

OCTOBER

- A. rumicisto May, spun up, in crevices of trees, palings, walls, &c.
 A. putristo May, sub., at elm
 D. pinastrito May, in a cocoon, on the ground, among dock, sorrel, &c.
 X. conspicillaris to Mar., sub., at elm, and other trees
 M. albicolon.....to April, sub., near Atriplex, Chenopodium, lettuce, &c.
 C. Morpheus.....to May, spun up, in a leaf, or an earthen cocoon, attached to food-plant
 A. segetum, s. ...to May, sub., among Cruciferae, grass, &c.
 T. piniperda.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles, about 1½ in. or 2 in. deep, rarely within 2 ft. of the tree
 T. gothica.....at various trees, just beneath the surface
 " leucographa } at r. of low plants
 " rubricosa ... }
 " instabilis } at r. of various trees
 " stabilis }
 " opimaat r. of Rosa spinosissima, and dwarf willows; below the sand, on sand-hills, in the N.
 " populeti sub., at poplars, especially Populus nigra; deep
 " gracilis..... sub., at willows, willows, and low plants
 " miniosaamong fallen leaves, &c.
 " mundaunder moss, at base of oak
 " crudasub., at oak
 D. carpophaga...to April, sub., near Silene, and Lychnis; on the coast; found by raking sand-hills
 H. serenasub., near Sonchus, and lettuce [and birch
 H. glauca sub., near willow, H. oleracea sub., near elm, nettle dock, &c.; also in kitchen gardens
 " thalassina ... sub., near honeysuckle, willow, broom, &c.
 X. lithorizato Feb., near honeysuckle; in a papery cocoon, on the ground
 C. verbasciin a large, tough, earthen cocoon, near mullein, or figwort
 " scrophulariæ in a cocoon, near figwort, or mullein; s. two years in pupa
 " lychnitissub., near white, or black mullein; s. two years in pupa
 " asterissub., near golden rod, &c.; s. two years in pupa
 " gnaphaliisub., near golden rod
 " absynthii sub., near wormwood
 " chamomillæ...sub., near chamomile, &c.
 " umbraticasub., near Sonchus, &c.
 H. marginata ...sub., near Ononis procurrens
 H. dipsaceato May, among melilot, and probably Silene otites, and Linaria
 A. myrtillispun up, in heath
 E. venustulato May, at r. of Tormentilla reptans, and grass
 B. argentulaamong grass, on the ground
 B. parthenias ...at birch; in crevices of bark, or on the ground
 A. urticaeto May, spun up, among nettle leaves
 " triplasiato May, spun up, among nettle leaves, hop, &c.
 P. æneato May, amongst Polygala vulgaris
 E. sambucalis ...to May, spun up, in crevices, in palings, walls, &c.; near elder
 G. canella.....to June, among Salsola kali

PUPÆ]

OCTOBER

L. roborella	} among fallen oak leaves	L. faginella .....among fallen beech leaves	
" hortella		" carpinicolella } among fallen leaves	
" amyotella.....		" tenella	} of hornbeam
" lautella.....			
" quercifoliella			
" Heegeriella ...			
" Cramerella ...			

IMAGOS]

Although the cold winds, and occasional frosts, which now begin to visit us, tell of the approach of winter, we have not yet reached the time,

"When the Night doth meet the Noon
In a dark conspiracy
To banish Even from her sky;"

and the Collector must not yet suppose his "season" is closed. This is the great month for captures at ivy, which is now in bloom; and a large number of the autumnal species are attracted to the stupefying blossoms. In the day-time bees, and butterflies hold high festival over the mantling ivy sprays; and at night, soon after dusk, many Moths, especially Noctuæ, flock as to a banquet, where

"Unbought dainties crown the feast."

The short period required for the intoxication, or stupefaction, of the Moths is remarkable. The blossoms should be lightly beaten, or shaken, into an umbrella, or clap-net, or sheet, or other contrivance, held or spread beneath, when the Moths required are easily boxed. Sometimes the labours of the Collector are rewarded by the capture of the rare *D. rubiginea*. Other flowers, besides the ivy, are also very attractive to Moths, especially *arbutus*, and stinging nettle; as are also blackberries, and other fruit.

V. c.-album, h. at blackberries, &c.;	H. pennaria .....woods; at rest, on trees
may be found hanging to under-side of leaves of trees, in wet weather	S. sacraria, 2. ...flies by day; has been taken at fl.; at sugar; and at l. [trees]
" polychloros, h. hangs up, in out-houses, hollow trees, &c., for the winter	H. aurantiaria ...woods; at rest, on trees
" Antiopa, h. ...at ivy, fl., and cossus-infected trees	" defoliaria .....woods; at rest, on trees
" Atalanta, h. at ivy, fl., and fruit	C. brumata .....comes to l.
" cardui, h. ...at fl.	" boreata
C. Pamphilus ...	O. dilutata
P. Phloceas.....at fl.	T. juniperata ...comes to l.
A. Atropos .....at rest, on palings, &c.	C. psittacata, h. comes to l.
C. celerio .....at fl., at dusk	" miata, h.
" nerii	E. cervinata
E. alniaria	C. spartiata
	P. Cassinea, e....comes to l.
	P. bucephala ...at rest

IMAGOS]

OCTOBER

- P. plumigera .. shady woods, and
 hedges; local
 D. cæruleocephala comes to l.
 T. batis, 2.
 L. vitellina
 " albipuncta ...at fl.
 " comma, s., 2.
 " l-album
 N. lutosa, b.comes to l.
 H. micaceacomes to l. [to l.
 A. Australisamong grass; comes
 L. exigua
 C. cubicularis ...beaten, from thatch
 A. suffusa, h. ...at ivy
 " saucia, h.at ivy; comes to l.
 " segetumat ivy
 O. lotaat ivy [berries
 " macilentaat ivy, and yew
 A. rufinaat ivy
 " pistacinaat ivy
 " lunosacomes to l., and ivy
 C. vaccinii, h. ...at ivy
 " spadicea, h.at ivy
 " erythrocephala, h. at ivy
 S. satellitia, h.at ivy [berries
 D. rubiginea, h. ...at ivy, and yew
 H. croceago, h. at ivy
 X. silago
 " aurago, b.at ivy
 " ferruginea ...at ivy
 D. templi, h. ...usually found by
 turning over stone-heaps, in
 elevated districts; comes to l.
 E. nigraat ivy
 M. oxyacanthæ at ivy
 A. Aprilina
 P. meticulosa .. at ivy
 " empyreaat ivy
 C. vetusta, h. ...at ivy
 " exoleta, h.at ivy
 X. lambda [tree trunks
 " furcifera, h.at ivy, and rests on
 " rhizolitha, h. at ivy, and rests on
 tree trunks
 " semibrunnea, h. at ivy
 " petrificata, h. at ivy
 H. armigeraat ivy [palings
 C. fraxiniat rest, on walls, and
 " nuptaat rest, on walls,
 tree trunks, &c.
- H. proboscidalis [houses
 " rostralis, h. ... in gardens, and out-
 P. fimbrialiscomes to l.
 D. ramburialis ...
 M. unionalis successive broods,
 during the year
 S. coarctalis, h. on mossy walls
 E. ficellain corn, and seed
 warehouses, among oilcake, &c.
 N. angustella, 2.
 M. alveariella, s. about beehives
 L. scabranaamong elm [thorn
 P. cristana ...among sallows, & haw-
 P. sordidanaamong alder; in
 marshes, and fens
 L. phryganella ...
 E. gelatella
 T. imella
 " pellationella ...common, in houses
 " pallescentella in warehouses, and
 poulterer's shops
 H. radiatella, h.
 Y. asperellaamong apple
 P. caudella, h. ...
 D. hypericella ...among Hypericum
 " ocellellaamong willow
 " depressella, s.
 " olerellabeaten, from thatch;
 near Hazlemere [slack
 G. LyelliaCastle Eden, Wither-
 " atriplicella, 3. among Atriplex,
 and Chenopodium
 A. betulellabeaten; Castle Eden,
 High Force
 Z. fasciapennella the Pentlands
 G. semifasciella
 C. citrinella, h. ...
 B. somnulentella
 C. chærophyllella, h.
 " daucella
 L. decorella, h. among Epilobium
 L. trifasciella ...among honeysuckle
 L. padifoliella ...
 P. salignella, h. among willows, near
 London [vulus
 P. pterodactylus, h. among Convol-
 " serotinus among Galium
 Mollugo
 A. polydactyla, h. ... among honey-
 suckle, and in windows

NOVEMBER

OVA]

- T. *quercus*on oak twigs
 " *w-album*on wyth elm ; also elm ; on the twigs
 " *pruni*on sloe twigs
 L. *Ægon*on *Ornithopus perpusillus* ; white
 H. *comma*.....on trefoil, and other Leguminosæ
 L. *monacha*on oak, beech, fir, birch, apple, &c.
 T. *cratægi*.....on hawthorn ; also s. sloe, sawallow, birch, oak
 P. *populi*to Mar., on oak, poplar, lime, ash, hawthorn
 B. *neustria*on hawthorn, sloe, fruit trees ; in batches round twigs, and branches
 " *castrensis*.....on *Artemisia maritima*, *Daucus maritimus*, &c.
 E. *vespertina* ...on nut
 " *apiciaria* poplar, willow, sawallow
 C. *elinguaria* ...on oak, honeysuckle, hawthorn, sloe ; also heath, bilberry, &c.
 H. *pennaria*on oak
 F. *pinetaria* ... on bilberry
 H. *aurantiaria* ...to March, on oak, birch, hawthorn, &c.
 " *defoliaria*to March, on oak, nut, sloe, hawthorn, birch, elm, lime, &c.
 C. *brumata*to March, on oak, and other trees
 " *boreata*to March, on birch
 O. *dilutata*to March, on oak, and other trees
 E. *subciliata*.....on maple ; at foot-stalk of leaf
 M. *rubiginata* ...on alder ; large
 S. *vetulata*on buckthorn
 C. *immanata* ...probably on alder, and other trees, and strawberry, bilberry, &c. ; large
 C. *prunata* on currant, gooseberry, sloe ; on the bark, large
 " *testata* on heath, birch, sawallow, poplar, &c. ; singly, large
 " *populata*on bilberry, whortleberry, poplar ; globular, large, yellow
 " *fulvata*on dog rose ; rose-pink, large
 " *pyraliata*on *Galium*, and hawthorn ; large
 " *dotata*on black, and red currant ; large
 E. *cervinaria* ...to April, on mallow
 C. *spatiata*on broom
 T. *chærophyllata*... on *Anthriscus sylvestris*, and *Bunium flexuosum*
 P. *Cassinia*to April, on oak
 P. *plumigera* ...on maple ; chiefly on the twigs, in hedges, not shaded by trees ; after the 7th of the month, until March. Often singly ; but also in twos, threes, and s. much larger clusters. Circular, smooth ; brown above, whitish beneath
 C. *xerampelina*...on ash ; probably in the chinks of the twigs, and the buds
 T. *subtusa*.....upon the twigs of poplar
 " *refusa*on sawallow, willow, poplar ; upon the axils of the leaves
 P. *chi*.....on dock, hawthorn, sawallow ; and probably lettuce, sowthistle, "tea tree," &c.
 " *flavocincta* ...on dock, chickweed, groundsel, mint, &c. ; in gardens, on everlasting pea, plum, &c.
 H. *proboscidalis* on nettle ; rather large, pale yellow

LARVÆ]

NOVEMBER

A large number of hibernating larvæ hide away early, and are seldom seen again until the spring. Thus several specified under this month may not have been seen since July, August, or September. Several others come out to feed occasionally, when the weather is mild.

- A. Iris, h. stretched out, on a
sallow twig
A. Australis, h. Cichorium intybus,
Poa annua, and other plants
H. hispida, h? .. grasses, lettuce,
plantain, &c.
A. Puta. dandelion, lettuce,
carrot r., knotgrass, &c.
„ saucia, h. plantain, dock, and
other low plants
N. Dahlii, h. low plants; s. feeds
up without h., in mild winters
„ umbrosa, h. dock, and various
low plants; feeds in mild wea-
ther, through the winter
C. xerampelina, h. ash
E. lichenea, h. ragwort, and other
low plants; on the coast
P. meticulousa, h. groundsel, and
various low plants
„ empyrea, h. pilewort, &c.
M. cephalonica, h. dried currants,
&c.
P. gentiana, h. teasle, heads
„ marginana, h. teasle, heads
C. fulvana? heads of Centaurea
scabiosa
S. ferrugalis has been fed on
Aster amellus, on the Continent
M. polygonalis... Ulex nanus, fl., on
heaths; Genista?
T. imella among furrier's
refuse, and has been found in
a felt shoe!
„ merdella in furs
„ semifulvella, h. in birds' nests,
feeding on wool
P. bicostella, h. Erica cinerea
A. fibulella in a flat case, on
leaves of Veronica chamædrys
C. albitarsella, h. Origanum, and
Glechoma
„ vitisella, h. whortleberry [trees
C. Linneella, h. under bark of lime
E. gangabella, h. Dactylis glomerata
L. lantanella, h. Viburnum lantana;
best collected this month
T. marginea, h. bramble
N. ruficapitella... in common oak,
and evergreen oak

PUPÆ]

- P. Machaon on stems of Peu-
cedanum palustre; in fens
P. brassicæ ... } on palings, walls,
„ rapæ. } &c.
„ napi }
S. ocellatus sub., at willows,
poplars, &c.
„ populi sub., at poplar, wil-
low, &c.
„ tilia sub., at elm, lime,
beech
C. ligniperda ... to May, at various
trees; spun up, under bark,
&c.; but s. buries
L. asellus spun up, on a leaf
A. mendica under moss, on trees
bordering ditches
A. lubricipeda } spun up, on palings,
„ menthrasti } trees, &c.
„ urtica under moss, on trees
O. pudibunda in dead leaves,
under moss, &c.
E. lanestris ... cocoon, on the
ground, near hawthorn, &c.
E. versicolora ... spun up, at birch
S. carpini cocoon, amongst
leaves, heath, &c.
E. dolobraria under moss, on oak
S. illunaria sub., at willow, oak,
&c.
„ lunaria at sloe, oak, nut,
&c.
„ illustraria cocoon, among
leaves, on, or near, the ground

PUPÆ]

NOVEMBER

- O. bidentata.....under moss, on various trees
- P. pilosariasub., at oak, and elm
- N. zonaria.....sub., on sand-hills
- " hispidaria.....at oak
- B. hirtaria.....sub., at elm, lime, ash, and fruit trees
- A. prodromaria sub., at oak, elm, &c. ; just beneath the surface
- " betulariasub., at oak, elm, birch, and other trees
- H. abruptaria ...spun up, on twigs, &c. ; of lilac, rose, or privet
- T. consonaria ...under moss, at r. of beech, oak, birch
- " crepuscularia undermoss, on alder, birch, elm, poplar, willow ; or in bark crevices
- " biundularia ...spun up, on oak, and birch
- " punctulata ...undermoss, on birch, and alder ; or in bark crevices
- I. lactearia spun up, among leaves of oak, and birch
- E. poratafastened to leaf of oak
- " punctaria.....fastened to leaf of oak, or birch
- " trilinearia.....fastened to leaf of beech
- " pendularia ...fastened to leaf of birch
- E. heparataamong moss, &c., on alder
- C. pusaria..... spun up, on the ground
- " exanthemaria spun up, under leaves of sawlow, and alder
- M. lituratain open places, and on the margins of fir woods, at 1 inch to 2 inches deep, rarely within 2 feet of the tree
- N. pulveraria ...in withered sawlow leaves, &c.
- F. carbonaria ...among dead leaves of sawlow, and birch
- " piniariaat Scotch fir, and larch ; in open places, in woods, rarely within 2 feet of the tree, at 1½ in. to 2 in. deep
- H. rupicaprararia in a web, on the ground, among oak, sloe, &c.
- " leucopheararia on the ground, near oak
- " progemmaria sub., at oak, birch, hornbeam, &c.
- " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
- A. æscularia.....sub., at elm, oak, lime, sloe, hawthorn
- L. multistrigaria sub., about Galium
- E. albulatawithin the spun-up sepals of yellow rattle
- " decolorata ...about *Lychnis dioica*
- E. venosataabout *Silene*, and *Lychnis*
- " consignata probably under moss, and loose bark, in apple orchards
- " pulchellata ... among the seeds, and dead fl. of foxglove
- " isogrammataabout *Clematis vitalba*
- " fraxinataon ash ; under moss, and loose bark
- " nanataabout heath
- " vulgatasub., at various plants, and trees
- " minutataabout heath
- " assimilata.....in crevices, about currant, and hop
- " exiguaabout oak, &c.
- M. ocellataamong Galium ; spun up, near the ground. The larva s. remains during winter
- M. subtristata ...sub., near Galium
- " galiatasub., near Galium
- A. sinuata.....in earthen cocoon, on the ground, among Galium
- " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
- " derivatasub., at dog rose
- C. sagittataspun up, about *Thalictrum*, or on the ground, near ; in fens
- E. lineolatacocoon attached to Galium verum, below the surface, on coast sand-hills

PUPÆ]

NOVEMBER

- P. *fulcula*between united birch leaves
- D. *bicuspis*spun up, on birch trunks, in the S. ; alder in the N. ; rarely above 2 ft. from the ground
- furcula*spun up, on trunk of willow, or willow
- bifida*spun up, on trunk of poplars
- vinula*spun up, on trunk of willows, poplars, and willow ; three, or four feet from the ground
- S. *fagi*spun up, among leaves of beech, oak, birch, elm ; s. at r.
- P. *bucephala* ...sub., at various trees
- C. *curtula*spun up, between dead leaves of poplars, and willow
- reclusa*to May, spun up, among dead leaves of poplars, willows, willows
- P. *palpina*.....at willows, and poplars, on edges of streams, in cocoon, on the ground, or under sods
- N. *camelina*.....in a slight cocoon, at various trees
- cucullina*at maple, and sycamore, under moss, &c.
- carmelita*sub., at birch
- dictæa*at poplars, and willows ; in large cocoon, under a leaf, or sod
- dictæoides* ...at birch ; in a slight cocoon, under a leaf, &c.
- dromedarius* at birch, alder, nut ; in a slight cocoon, under a leaf, &c.
- ziczac*at poplars, willow, willows ; in a slight cocoon
- trepida*sub., at oak ; cocoon tough, but not always coated with earth
- Chaonia*sub., at oak
- Dodonea*.....sub., at oak, & birch
- T. *batis*near bramble, and wild raspberry
- C. *duplaris*between united birch leaves
- fluctuosa*among birch leaves
- or, b.at birch, among dead, or united leaves
- ocularis*, b. ...at poplars, near the surface of the ground, or spun against the tree
- flavicornis* ...between united birch leaves
- D. *Orion*at birch, and oak ; in a cocoon of gnawed bark, or rotten wood
- A. *tridens*spun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
- psi*.....in bark crevices, of various trees
- leporina*in excavations in the bark of birch, poplar, alder, willow
- aceris*spun up, among fallen leaves, and under loose bark of sycamore, horse chesnut, maple, birch, and s. oak
- megacephala* at poplar, under the bark
- strigosa*among dead leaves of hawthorn, or rubbish, or decayed wood ; s. sub.
- alni*between leaves of various trees ; or inside bramble sticks
- ligustri*spun up, under moss, stones, &c., near ash, and privet ; also sub. ; also found under the top stones of walls, against the tree
- rumicis*.....spun up, in crevices of trees, palings, walls, &c.
- A. *putris*sub., at elm
- D. *pinastri*in a cocoon, on the ground, among dock, sorrel, &c.
- X. *conspicillaris* sub., at elm, and other trees
- M. *albicolon*.....sub., near *Atriplex*, *Chenopodium*, lettuce, &c.
- A. *segetum*, s.sub., among *Cruciferae*, grass, &c.

PUPÆ

NOVEMBER

- T. piniperda.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, and under moss, and fallen needles; rarely within 2 ft. of the tree, $1\frac{1}{4}$ to 2 in. deep
- T. gothica.....at various trees
- " leucographa } at r. of low plants
- " rubricosa ... }
- " instabilis ... } atr. of various trees
- " stabilis
- " opimaat r. of Rosa spinosissima, and dwarf willow; below the sand, on sand-hills in the N.
- " populetisub., at poplars, especially Populus nigra; deep
- " gracilissub., at willows, willows, and low plants
- " miniosaamong fallen leaves, &c.
- " mundaunder moss, at base of oaks
- " crudasub., at oak
- D. carpophaga...sub., near Silene, and Lychnis; on the coast; found by raking sand-hills
- H. serenasub., near Sonchus, and lettuce
- H. glaucasub., near willow, and birch
- " oleraceasub., near elm, nettle, dock, &c.; also in kitchen gardens
- " thalassina ...sub., near honeysuckle, willow, broom, &c.
- X. lithorizanear honeysuckle, in a papery cocoon, on the ground
- C. verbasci ... } sub., in a cocoon,
- " scrophulariæ } near mullein, or figwort
- " lychnitissub., near white, and black mullein
- " asteris } sub., near golden
- " gnaphalii ... } rod, &c.
- " absynthiisub., near worm-wood
- " chamomillæ...sub., near chamomile, &c.
- " umbratica ...sub., near Sonchus, &c.
- H. marginata ...sub., near Ononis procurrens
- H. dipsaceaamong melilot, and probably Silene otites, and Linaria
- A. myrtilli ... spun up, on heath
- E. venustula.....at r. of Tormentilla reptans, and grass
- B. argentula.....among grass, on the ground
- B. parthenias ...at birch; in crevices of bark, or on the ground
- A. urticæspun up, among nettle leaves
- " triplasiaspun up, among nettle leaves, hop, &c.
- P. æneaamong Polygala vulgaris
- E. sambucalis ...spun up, in crevices in palings, walls, &c., near elder
- G. canella.....among Salsola kali

IMAGOS

- P. populiat rest, at the base of oak, &c.
- H. pennariawoods; at rest, on trees
- H. aurantiaria...woods; at rest, on trees
- " defoliaria.....woods; at rest, on trees
- C. brumatacomes to l.
- " boreata.....
- O. dilutata
- C. psittacata, h. comes to l.
- P. Cassineacomes to l.
- P. plumigera ...shady woods, and hedges
- L. vitellina
- A. segetum
- C. vaccinii, h. ...
- " spadicea, h. ...
- " erythrocephala, h.
- S. satellitia, h. ...
- D. rubiginea, h.

IMAGOS]

NOVEMBER

- | | |
|-------------------------------------|---------------------------------------|
| H. croceago, h. | L. phryganella ...flies in woods, in |
| D. templi, h. ... | calm weather |
| M. oxyacanthæ | E. gelatella .....among willow |
| C. exoleta, h. ... | T. imella |
| C. chamomillæ, h. | H. radiatella, h. |
| S. coarctalis, h. on mossy walls | P. caudella, h. ... |
| L. scabrana .....among elm | C. daucella |
| P. cristana .....among willows, and | L. Messaniella ...among evergreen oak |
| hawthorn | " trifasciella ...among honeysuckle |
| | L. Clerckella, h. |

DECEMBER

As there is now but little work to be done, out-of-doors, and as that may be impeded by frost, or snow, the reader may be reminded that this is a convenient period for over-hauling his collection ; carrying out any re-arrangement that, in these days of name-changing, may be deemed desirable ; or clearing out duplicate boxes, and otherwise preparing for the campaign next season. Mitey specimens, if worth preserving, may be "doctored" with a diluted solution of corrosive sublimate, dissolved in alcohol, or vinegar ; or with a weak solution of phenic acid in alcohol, or naphtha.

As papered drawers and boxes are often objectionable, from the trouble they involve, and the obstacle presented to the entrance of fine pins into the cork, by the coat of paper and paste, it may be desirable to whiten the cork instead. To carry this out properly the paper should be entirely removed from the cork, and the drawer cleaned. Then take as much lævigated oxide of zinc as may be deemed necessary, with a minute portion of indigo or ultramarine, to give greater whiteness, and gently add, mixing with a spatula, as much skimmed milk as will form with it a mixture of the consistence of cream ; then with a soft, flat camel's hair brush apply the mixture evenly over the surface ; by means of a dabber of muslin or cambric eliminate the lines formed by the brush, and dry slowly at some distance from the fire.

The following are stated to be preferable modes of keeping insects in cabinets or boxes to the ordinary camphor method : Treat each drawer, or box, to a fumigation, for a day or two, of Bisulphate of Carbon, by placing a small piece of sponge partially soaked with the fluid in the corner. If this is done once a-year or so, it is said to be perfectly effective in preventing the appearance of mites, beetles, or other enemies. This is the material employed by many dealers for preserving their large stocks of insects. The reader, however, ought to be warned that so offensive is the smell of this enemy of animal life, that it can only be applied in cases where a spare room is available for the purpose. Dr. Laboulbène gives the preference over every other insect preservative to a solution of equal parts of phenic acid and pure benzine, dropped on a small piece of sponge, and placed in the corner of the box, or drawer. This is stated to have the advantage of arresting fungoid growths.

OVA]

- | | |
|-------------------------------------|--------------------------------------|
| T. quercus .....on oak twigs | T. cratægi.....on hawthorn ; also |
| " w-album .....on wytch elm, also | s. sloe, sawlow, birch, oak |
| elm ; on the twigs | P. populi .....on oak, poplar, lime, |
| " pruni .....on sloe twigs | ash, hawthorn |
| L. Ægon .....on Ornithopus per- | B. neustria .....on sloe, hawthorn, |
| pusillus ; white | fruit trees ; in batches, round |
| H. comma .....on trefoil, and other | twigs, and branches |
| Leguminosæ | " castrensis .....on Artemisia mari- |
| L. monacha .....on oak, beech, fir, | tima, Daucus maritimus, &c. |
| birch, apple, &c. | E. vespertaria ...on nut |

OVA]

DECEMBER

- E. apiciariaon poplar, willow, sallow
 C. elinguarina ...on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
 H. pennariaon oak
 F. pinetariaon bilberry
 H. aurantiaria ...on oak, birch, hawthorn, &c. [trees
 C. brumataon oak, and other boreata.....on birch [trees
 O. dilutataon oak, and other
 E. subciliataon maple; on foot-stalk of leaf
 M. rubiginata ...on alder; large
 S. vetulataon buckthorn
 C. immanata ...probably on alder, and other trees; and strawberry, bilberry, &c.; large
 " prunataon currant, gooseberry, sloe; on the bark; large
 " testataon heath, birch, sallow, poplar, &c.; singly, large
 " populataon bilberry, whortleberry, poplar; globular, large, yellow
 C. fulvataon dog rose; rose-pink, large
 " pyraliataon Galium, and hawthorn; large
 " dotataon black, and red currant; large
 E. cervinaria.....on mallow
 C. spartiataon broom
 T. chærophyllata on Bunium flexuosum
 P. Cassineaon oak
 P. plumigera ...on maple; chiefly on the twigs, in hedges, where not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish underneath
 T. subtusa.....upon twigs of poplar
 " retusaon sallow, willow, poplar; upon the axils of the leaves
 P. flavicincta ...on dock, chickweed, groundsel, mint, &c.
 H. proboscidalis on nettle; rather large, pale yellow

LARVÆ]

- M. anceps —? in damp places
 A. Puta.....dandelion, lettuce, carrot roots, knotgrass, &c.
 " saucia, h.plantain, dock, and other low plants
 M. cephalonica, h. ...dried currants, &c.
 P. gentianana, h. teasle heads
 N. aurellafrom Jan., bramble

PUPÆ]

- P. Machaonon stems of Peucedanum palustre; in fens
 P. brassicæ ... }
 " rapæ } on palings, walls, &c.
 " napi }
 S. ocellatussub., at willows, poplars, &c.
 " populisub., at poplar, willow, &c.
 " tiliasub., at elm, lime, beech
 C. ligniperda ...at various trees; spun up, under bark, &c.; but s. buries
 L. asellusspun up, on a leaf
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda } spun up, on palings,
 " menthrasti } trees, &c.
 " urticaunder moss, on trees
 O. pudibunda ...in dead leaves, under moss, &c.
 E. lanestriscocoon, on the ground, near hawthorn, &c.
 E. versicolora ...spun up, at birch
 S. carpinicocoon, amongst leaves, heath, &c.
 E. dolobraria ...under moss, on oak

PUPÆ]

DECEMBER

- S. illunaria ...sub., at willow, oak, &c.
 " lunariaat sloe, oak, nut, &c.
 O. bidentataunder moss, on various trees
 P. pilosariasub., at oak, and elm
 N. zonariasub., on sand-hills
 " hispidariaat oak
 B. hirtariasub., at elm, lime, ash, and fruit trees
 A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " betulariasub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, and privet
 T. consonaria ...under moss, at r. of beech, oak, birch
 " crepuscularia undermoss, on alder, birch, elm, poplar, willow; or in bark crevices
 " biundularia ...spun up, on oak, and birch
 " punctulata ...undermoss, on birch, and alder; or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctariafastened to leaf of oak, or birch
 " trilineariafastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 E. heparataamong, moss, &c., on alder
 C. exanthemaria spun up, underleaves of sawlow, and alder
 M. lituratain, and near larch woods, 1 in. to 2 in. deep, rarely within 2 ft. of the tree
 N. pulveraria ...in withered sawlow leaves, &c.
 F. carbonaria ...among dead leaves of sawlow, and birch
 " pinariaat Scotch fir, and larch; in open places, in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
 H. rupicaprararia in a web, on the ground; among oak, sloe, &c.
 " leucopheararia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. æsculariaat elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulatawithin the spun-up sepals of yellow rattle
 " decolorata ...about *Lychnis dioica*
 E. venosata...about *Silene*, & *Lychnis*
 " consignataprobably under moss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata about *Clematis vitalba*
 " fraxinataon ash; under moss, and loose bark
 " nanataabout heath
 " vulgatasub., at various plants, and trees
 " minutataabout heath
 " assimilata ...in crevices, about currant, and hop
 " exiguaabout oak, &c.
 Y. impluviata ...in curled-up leaves of alder
 M. ocellataamong Galium; spun up, near the ground. The larva s. remains during winter
 M. subtristata ...sub., near Galium
 " galiatasub., near Galium
 A. sinuatain earthen cocoon, on the ground, among Galium
 " badiatain earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose
 C. sagittataspun up, about *Thalictrum*, or on the ground, near; in fens
 E. lineolatacocoon, attached to *Galium verum*; below the surface, on coast sand-hills

PUPÆ]

DECEMBER

- D. bicuspisspun up, on birch trunks, in the S., alder in the N.; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or willow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and willow; three, or four feet from the ground
 S. fagi spun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtulaspun up, between dead leaves of poplars, and willow
 " reclusaspun up, among dead leaves of poplars, willows, willows
 P. palpinaat willows, and poplars, on edges of streams; or under sods
 N. camelina sub., at various trees
 " cucullinasub., at maple, and sycamore
 " carmelitasub., at birch
 " dictæaat poplars, and willows; or under sods, near
 " dictæoides ...sub., at birch
 " dromedarius sub., at birch, alder, nut
 " ziczacsub., at poplars, willow, willows
 " trepidasub., at oak; cocoon tough, but not always coated with earth
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and birch
 T. batisnear bramble, and wild raspberry [leaves
 C. duplarisbetween united birch
 " fluctuosaamong birch leaves
 " flavicornis ...between united birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
 A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations, in the bark, of birch, poplar, alder, willow
 " acerisspun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch; s. oak
 " megacephala at poplar; under the bark
 " strigosaamong dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " alnibetween leaves of various trees; or inside bramble sticks
 " ligustrispun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
 " rumicisspun up, in crevices of trees, palings, walls, &c.
 A. putrissub., at elm
 D. pinastriin a cocoon, on the ground; among dock, sorrel, &c.
 X. conspicularis sub., at elm, and other trees
 M. albicolonsub., near Atriplex, Chenopodium, lettuce, &c.
 A. segetum, s.sub., among Cruciferae, grass, &c.
 T. piniperdaat Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 feet of the tree, 1½ to 2 in. deep
 T. gothicaat various trees
 " leucographa } at r. of low plants
 " rubricosa }
 " instabilis } at r. of various trees
 " stabilis }
 " opimaat r. of Rosa spinosissima, and dwarf willow; on sand-hills, in the N.

PUPÆ]

DECEMBER

- T. populetisub., at poplars, especially *Populus nigra*
 " gracilissub., at willows, sallows, and low plants
 " miniosaamong fallen leaves, &c.
 " mundaunder moss, at base of oak
 " crudasub., at oak
 D. carpophaga ...sub., near *Silene*, and *Lychnis*; on the coast; found by raking sand-hills
 H. serenasub., near *Sonchus*, and lettuce
 H. glaucasub., near *sallow*, and *birch*
 " oleraceasub., near *elm*, *nettle*, *dock*, &c.; also in kitchen gardens
 " thalassinasub., near *honeysuckle*
 X. lithorizanear *honeysuckle*, in a papery cocoon; on the ground
 C. verbasci } sub., in a cocoon,
 " scrophulariæ } near *mullein*, or
 " lychnitissub., near *white*, and *black mullein*
 C. asteris } sub., near *golden*
 " gnaphalii } rod, &c.
 " absynthiisub., near *worm-wood*
 " chamomillæ...sub., near *chamomile*, &c.
 " umbratica ...sub., near *Sonchus*, &c.
 H. marginata ...sub., near *Ononis procurrens*
 " dipsaceaamong *melilot*, and probably *Silene otites*, and *Linaria*
 A. myrtillispun up, on *heath*
 E. venustula.....at r. of *Tormentilla reptans*, and *grass*
 B. argentulaamong *grass*
 B. parthenias ...at *birch*, in crevices of bark; or on the ground
 A. urticaespun up, among *nettle leaves*
 " triplasiaspun up, among *nettle*, *hop*, &c.
 P. ænea.....among *Polygala vulgaris*
 E. sambucalis ...spun up, in crevices in *palings*, *walls*, &c., near *elder*
 G. canella.....among *Salsola kali*

IMAGOS

- H. pennaria
 P. pilosaria
 H. rupicaprararia, e. on *hawthorn twigs*
 " defoliaria
 C. brumatacomes to l.
 " boreata.....
 O. dilutata
 P. populi
 P. Cassinea, b...
 P. plumigera ...
 X. rhizolitha, h.
 E. gelatellaamong *sallow*
 H. radiatella, h.
 P. caudella, h...
 L. trifasciella ...among *honeysuckle*

NOTES ON LOCALITIES.

In spite of the encroachments constantly being made by advancing "civilization," and the agricultural, and other improvements being carried out, in large tracts of country, fortunately, for the sake of Entomological and Botanical Science, we have still many localities left to us in a comparative state of nature. The geological and physical features of a country are well known to be the chief regulating agencies in the production of its Flora and its Fauna. We are chiefly interested in the Insect Fauna only, and the Flora upon which that mainly depends. If the observer is assured of the productiveness of any particular locality in a special plant, or family of plants, he may fairly conclude that there are corresponding Insects also to be found. Hills, as a rule, (when moderately covered with a good variety of not-too-closely planted wood) seem more productive than purely agricultural districts in the vale, besides producing special Insects which are not to be found elsewhere. Wet places, provided they are not too much exposed, produce more insect-life than colder and dryer places. Thus forests, woods, heaths, bogs, and especially fens, and sandy districts bordering the sea, are favourite resorts of the Entomologist. In these latter places especially do we find rare and interesting insects. Some of them are remarkably local, being apparently confined to a very small space, not always precisely defined by the range of the food-plant. In some of these districts, notably the "Breck" districts of Norfolk and Suffolk, the ancient coast-line, *inside* the existing line, is unmistakably indicated, and produces its special plants and insects, not to be found elsewhere in the kingdom. These are spots which are most interesting from a scientific point of view, and ought never to be "hunted to death," for the sake of the rare specimens they produce, or we may see "the goose killed for the sake of the golden eggs," to our cost,—a process, indeed, we are threatened with, in regard to some of our local insects, by needy dealers, and greedy Collectors. Mr. Charles G. Barrett has done much to make us acquainted with the riches of this "Breck" district, and the neighbouring fens, and by his energy and intelligence has greatly enlarged our scientific knowledge of many species.

Probably one of the best districts in this country for Insects is Rannoch, which is doubtless largely due to the abundant vegetation of the heaths, woods, and hills having from time immemorial remained wild and unshorn. This it is, too, which makes our old forests such excellent hunting grounds for local insects, particularly Sherwood Forest, and the New Forest. Epping Forest, too, (now happily preserved against further encroachments from lucre-loving lords-of-the-manor), was once a famous locality, and doubtless many good species still linger there. The Forest of Dean has been somewhat disappointing, probably because of the poorness of a good deal of the soil, and the number of young plantations, interspersed with coal-pits and iron-works; while it is a difficult country to work, on account of its hilly character. Bewdley Forest, Worcestershire, has yielded larvæ of *E. versicolora*, and other good things.

Many of our moors, mosses, and heaths yield a fair number of good species, or did do so some years ago; and the undrained fens of Cambridge and Norfolk have long been held in esteem for the richness of their Insect Fauna. Many of the bare, wild districts in the North, "far removed from the haunts of men," have, by sturdy and persistent hunting, been made to yield abundantly. The Isle of Man, and the Hill of Howth, near Dublin, have attracted some of our best Entomologists, and have been the means of adding several new species to our Lists. The Isle of Portland is almost the only place where some species of *Acidalia* are to be found, though success is not always vouchsafed the wayfarer, owing to the villanously wet and windy weather which largely prevails in that district. The coast of Dorset in two places, the Burning Cliff, and Lulworth Cove, yields the very local skipper *P. Actæon*.

The London District includes many good localities which can easily be reached by railway. West Wickham wood, near Croydon, has yielded several good species. The Collector is recommended to proceed from Croydon towards the village of Addington, examining as he goes along the "Bishop's fence" for *N. carmelita*, should he be there when it is due, and also the birch, fir, and other tree trunks. The wood is near the inn. Coombe wood has been worked by the older Entomologists with great success. It is preserved for shooting purposes by the Duke of Cambridge, from whose agent Mr. Clutton, Whitehall-place, it is said to be possible to get an order for admission in pursuit of insects.

Kent, besides being "the garden of England," is probably one of our finest entomological counties. It is so largely blown upon from the sea; it has such a variety of soil and physical feature; and it is so liberally interspersed with well-wooded hills, that this is not to be wondered at. Fortunate is the Entomologist sojourning or resident in London, with time and means to hunt the coasts, and hills, and glades of sunny Kent.

It is on our coasts, marshes, and mountains that we are most likely to find species hitherto unrecorded as British, if not absolutely new to Science. Unfortunately working in these places involves a large expenditure of time, while the labour is so severe that only the strongest can follow it up. If some of our Societies could be induced to take this work up, by employing trustworthy Collectors, they would, while adding materially to the richness of their own collections, fulfil a legitimate function of their existence, and give additional lustre to the reputation gained by England of late years in the path of Entomological Discovery.

APPENDIX I.

SPECIFIC AND COMMON NAMES OF PLANTS MENTIONED IN THE CALENDAR.

<i>Abies excelsa</i>	spruce fir
" <i>picea</i>	silver fir
<i>Acer pseudo-platanus</i> ..	sycamore
" <i>campestre</i>	maple
<i>Achillea millefolium</i>	yarrow
" <i>ptarmica</i>	sneezewort
<i>Actæa spicata</i>	herb Christopher
<i>Ægopodium podagraria</i>	gout weed
<i>Aira canescens</i>	grey hair grass
" <i>cæspitosa</i>	turfy hair grass
<i>Agrimonia eupatoria</i>	agrimony
<i>Alisma plantago</i>	greater water plantain
<i>Alnus glutinosa</i>	alder
<i>Alopecurus agrestis</i>	slender foxtail grass
<i>Althea officinalis</i>	marsh mallow
" <i>rosea</i>	hollyhock
<i>Ammophila arundinacea</i>	sea reed, or marum
<i>Anagalis arvensis</i>	scarlet pimpernel, or poor man's weather glass
<i>Arenaria media</i>	sea-side sandwort
<i>Angelica sylvestris</i>	wild angelica
<i>Anthemis nobilis</i>	common chamomile
" <i>cotula</i>	stinking chamomile
<i>Anthriscus sylvestris</i>	wild chervil
" <i>vulgaris</i>	common beaked parsley
<i>Anthyllis vulneraria</i>	woundwort, or kidney vetch
<i>Aquilegia vulgaris</i>	columbine
<i>Arabis</i>	rock cress, white arabis, &c.
<i>Arctostaphylos uva-ursi</i>	red bearberry
<i>Artemisia campestris</i>	field southernwood
" <i>vulgaris</i>	mugwort
" <i>maritima</i>	sea wormwood
" <i>absinthium</i>	wormwood
<i>Æsculus hippocastanum</i>	horse chesnut
<i>Asparagus officinalis</i>	common asparagus
<i>Asperula odorata</i>	sweet woodruff
<i>Asphodelus luteus</i>	yellow asphodel
<i>Asplenium Ruta muriaria</i>	wall-rue spleenwort
<i>Aster novi belgii</i>	Michaelmas daisy

<i>Atriplex</i>	orache
" <i>portulacoides</i>	shrubby orache, or sea purslane
<i>Avena pratensis</i>	narrow-leaved oatgrass
<i>Ballota nigra</i>	black horeround
<i>Balsamia hortensis</i>	balsam
<i>Barbarea vulgaris</i>	yellow rocket, or bitter winter cress
<i>Bartsia viscosa</i>	yellow viscid bartsia
<i>Berberis vulgaris</i>	barberry
<i>Beta maritima</i>	sea beet
<i>Betula alba</i>	birch
<i>Brachypodium sylvaticum</i>	slender false brome grass
<i>Brassica oleracea</i>	cabbage
" <i>rapa</i>	turnip
" <i>napus</i>	rape
<i>Bryonia dioica</i>	red-berried bryony
<i>Briza media</i>	quaking grass
<i>Bunium flexuosum</i>	earth nut
<i>Calamagrotis epigejos</i>	wood reed
<i>Callistephus chinensis</i>	China aster
<i>Callitriche verna</i>	water starwort
<i>Calluna erica</i>	heath, or ling
<i>Caltha palustris</i>	marsh marigold
<i>Calystegia sepium</i>	large convolvulus, or great bindweed
<i>Campanula trachelium</i>	nettle-leaved campanula
" <i>rotundifolia</i>	harebell
<i>Cardamine amara</i>	bitter lady's smock
" <i>pratensis</i>	common lady's smock
" <i>hirsuta</i>	hairy bitter cress
<i>Carduus nutans</i>	musk thistle
" <i>acanthoides</i> ..	welted thistle
" <i>lanceolatus</i>	spear plume thistle
" <i>crispus</i>	jagged thistle
<i>Carex paniculata</i>	great panicled sedge
" <i>sylvatica</i>	pendulous wood sedge
" <i>paludosa</i>	lesser common sedge
" <i>riparia</i>	great common sedge
" <i>glauca</i>	glaucous heath sedge
" <i>intermedia</i>	soft brown marsh sedge
<i>Carpinus betulus</i>	hornbeam
<i>Castanea vulgaris</i>	Spanish chesnut
<i>Centaurea nigra</i>	black knapweed
" <i>scabiosa</i>	great knapweed
<i>Cerastium vulgatum</i>	broad-leaved mouse-ear chickweed
" <i>tomentosum</i>	woolley mouse-ear chickweed
" <i>arvense</i>	field chickweed, or mouse-ear
<i>Cerasus avium</i>	wild cherry
" <i>padus</i>	bird cherry
" <i>laurocerasus</i>	laurel
<i>Chenopodium album</i> ..	goosefoot
<i>Chærophyllum temulum</i>	rough chervil
<i>Chrysanthemum leucanthemum</i> ..	ox eye
" <i>sineuse</i>	chrysanthemum

<i>Thrysosplenium alternifolium</i>	alternate-leaved golden saxifrage
<i>Ichorium intybus</i>	wild succory
<i>Ircaea lutetiana</i>	enchanter's nightshade
<i>Leucanthemum lanceolatum</i>	spear plume thistle
" <i>arvense</i> (<i>Carduus arvensis</i>)	creeping plume thistle
" <i>acaule</i>	dwarf plume thistle
<i> Clematis vitalba</i>	clematis, or travellers' joy
<i>Raphanistrum armoracia</i>	horse radish
" <i>anglica</i>	English scurvy grass
" <i>officinalis</i>	common scurvy grass
" <i>danica</i>	Danish scurvy grass
<i>Urtica dioica</i>	bladder senna
<i>Ononis spinosa</i>	common hemlock
<i>Convolvulus arvensis</i>	small convolvulus, or small bindweed
<i>Cornus sanguinea</i>	dogwood, or wild cornel
<i>Corylus avellana</i>	nut, or hazel
<i>Rosa oxyacantha</i>	hawthorn, or whitethorn
<i>Urtica dioica</i>	berry-bearing campion
<i>Cupressus fastigata</i>	cypress
<i>Canis major</i>	houndstongue
<i>Juncus acutiflorus</i>	rush
<i>Cytisus scoparius</i>	broom
<i>Elymus glomeratus</i>	rough cocksfoot grass
<i>Malva stramonium</i>	thorn-apple
<i>Daucus carota</i>	common carrot
" <i>maritimus</i>	sea-side carrot
<i>Delphinium</i>	larkspur
<i>Digitalis purpurea</i>	foxglove
<i>Sisymbrium officinale</i>	wild teasle
" <i>Fullonum</i>	fuller's teasle
<i>Androsace alpina</i>	dryas, or mountain avens
<i>Cladonia rangiferina</i>	a common moss
<i>Aspidochelone</i>	viper's bugloss
<i>Lythrum salicaria</i>	upright sea lyme grass
<i>Empetrum nigrum</i>	crakeberry, or crowberry
<i>Salix montana</i>	broad smooth-leaved willow herb
" <i>parviflora</i>	small-flowered hairy willow herb
" <i>palustre</i>	narrow-leaved marsh willow herb
" <i>angustifolia</i>	rose bay willow herb
" <i>hirsuta</i>	great hairy willow herb
" <i>alnifolia</i>	chickweed-leaved willow herb
<i>Horsetail</i>	horsetail
<i>Erica cinerea</i>	fine-leaved heath
" <i>tetralix</i>	cross-leaved heath
<i>Erigeron acer</i>	blue fleabane
<i>Triphorum vaginatum</i>	cotton grass
<i>Thymus praecox</i>	common centaury
<i>Podium circutarium</i>	hemlock storksbill
<i>Eryngium maritimum</i>	sea eryngo, or sea holly
<i>Sisimum cheiranthoides</i>	treacle mustard
<i>Spinifolium europæus</i>	spindle
<i>Humulus lupulinius</i>	hemp agrimony

PUPÆ]

DECEMBER

- S. illunaria* ...sub., at willow, oak, &c.
 " *lunaria*at sloe, oak, nut, &c.
O. bidentataunder moss, on various trees
P. pilosariasub., at oak, and elm
N. zonaria.....sub., on sand-hills
 " *hispidaria*at oak
B. hirtaria.....sub., at elm, lime, ash, and fruit trees
A. prodromaria sub., at oak, elm, &c. ; just beneath the surface
 " *betularia*sub., at oak, elm, birch, and other trees
H. abruptaria ...spun up, on twigs, &c., of lilac, rose, and privet
T. consonaria ...under moss, at r. of beech, oak, birch
 " *crepuscularia* undermoss, on alder, birch, elm, poplar, willow ; or in bark crevices
 " *biundularia* ...spun up, on oak, and birch
 " *punctulata* ...undermoss, on birch, and alder ; or in bark crevices
I. lacteariaspun up, among leaves of oak, and birch
E. poratafastened to leaf of oak
 " *punctaria*fastened to leaf of oak, or birch
 " *trilinearia*.....fastened to leaf of beech
 " *pendularia* ...fastened to leaf of birch
E. heparataamong, moss, &c., on alder
C. exanthemaria spun up, underleaves of sawlow, and alder
M. lituratain, and near larch woods, 1 in. to 2 in. deep, rarely within 2 ft. of the tree
N. pulveraria ...in withered sawlow leaves, &c.
F. carbonaria ...among dead leaves of sawlow, and birch
 " *pinaria*at Scotch fir, and larch ; in open places, in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
H. rupicaprararia in a web, on the ground ; among oak, sloe, &c.
 " *leucopheararia* on the ground, near oak
 " *progemmaaria* sub., at oak, birch, hornbeam, &c.
 " *defoliaria*.....sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
A. æscularia.....at elm, oak, lime, sloe, hawthorn
L. multistrigaria sub., about Galium
E. albulatawithin the spun-up sepals of yellow rattle
 " *decolorata* ...about *Lychnis dioica*
E. venosata...about *Silene*, & *Lychnis*
 " *consignata*probably under moss, and loose bark, in apple orchards
 " *pulchellata* ...among the seeds, and dead fl. of foxglove
 " *isogrammata* about *Clematis vitalba*
 " *fraxinata*on ash ; under moss, and loose bark
 " *nanata*about heath
 " *vulgata*.....sub., at various plants, and trees
 " *minutata*about heath
 " *assimilata* ...in crevices, about currant, and hop
 " *exiguata*about oak, &c.
Y. impluviata ...in curled-up leaves of alder
M. ocellataamong Galium ; spun up, near the ground. The larva s. remains during winter
M. subtristata ...sub., near Galium
 " *galiata*sub., near Galium
A. sinuata.....in earthen cocoon, on the ground, among Galium
 " *badiata*.....in earthen cocoon, on the ground, beneath dog rose bushes
 " *derivata*sub., at dog rose
C. sagittataspun up, about *Thalictrum*, or on the ground, near ; in fens
E. lineolatacocoon, attached to Galium verum ; below the surface, on coast sand-hills

PUPÆ]

DECEMBER

- D. bicuspisspun up, on birch trunks, in the S., alder in the N.; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or willow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and willow; three, or four feet from the ground
 S. fagi spun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtulaspun up, between dead leaves of poplars, and willow
 " reclusaspun up, among dead leaves of poplars, willows, willows
 P. palpinaat willows, and poplars, on edges of streams; or under sods
 N. camolina sub., at various trees
 " cucullinasub., at maple, and sycamore
 " carmelitasub., at birch
 " dictæaat poplars, and willows; or under sods, near
 " dictæoides ...sub., at birch
 " dromedarius sub., at birch, alder, nut
 " ziczacsub., at poplars, willow, willows
 " trepidasub., at oak; cocoon tough, but not always coated with earth
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and birch
 T. batisnear bramble, and wild raspberry [leaves
 C. duplaris between united birch
 " fluctuosaamong birch leaves
 " flavicornis ...between united birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
 A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, willow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations, in the bark, of birch, poplar, alder, willow
 " acerisspun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch; s. oak
 " megacephala at poplar; under the bark
 " strigosaamong dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " alnibetween leaves of various trees; or inside bramble sticks
 " ligustrispun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
 " rumicisspun up, in crevices of trees, palings, walls, &c.
 A. putrissub., at elm
 D. pinastriin a cocoon, on the ground; among dock, sorrel, &c.
 X. conspiciaris sub., at elm, and other trees
 M. albicolonsub., near Atriplex, Chenopodium, lettuce, &c.
 A. segetum, s.sub., among Cruciferae, grass, &c.
 T. piniperda at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 feet of the tree, 1½ to 2 in. deep
 T. gothicaat various trees
 " leucographa } at r. of low plants
 " rubricosa }
 " instabilis } at r. of various trees
 " stabilis }
 " opimaat r. of Rosa spinosissima, and dwarf willow; on sand-hills, in the N.

PUPÆ]

DECEMBER

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 " *lunaria* at sloe, oak, nut, &c.
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P. pilosaria sub., at oak, and elm
N. zonaria sub., on sand-hills
 " *hispidaria* at oak
B. hirtaria sub., at elm, lime, ash, and fruit trees
A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " *betularia* sub., at oak, elm, birch, and other trees
H. abruptaria ... spun up, on twigs, &c., of lilac, rose, and privet
T. consonaria ... under moss, at r. of beech, oak, birch
 " *crepuscularia* under moss, on alder, birch, elm, poplar, willow; or in bark crevices
 " *biundularia* ... spun up, on oak, and birch
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E. porata fastened to leaf of oak
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E. heparata among, moss, &c., on alder
C. exanthemaria spun up, under leaves of saw, and alder
M. liturata in, and near larch woods, 1 in. to 2 in. deep, rarely within 2 ft. of the tree
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 " *consignata* probably under moss, and loose bark, in apple orchards
 " *pulchellata* ... among the seeds, and dead fl. of foxglove
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 " *fraxinata* on ash; under moss, and loose bark
 " *nanata* about heath
 " *vulgata* sub., at various plants, and trees
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 P. palpinaat willows, and poplars, on edges of streams; or under sods
 N. camelina sub., at various trees
 " cucullinasub., at maple, and sycamore
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 " trepidasub., at oak; cocoon tough, but not always coated with earth
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 " opimaat r. of Rosa spinosissima, and dwarf salallow; on sand-hills, in the N.

<i>Scleranthus annuus</i>	annual knawel
<i>Scolopendrium vulgare</i>	common hartstongue
<i>Scrophularia aquatica</i>	water figwort
" <i>nodosa</i>	knotted figwort
<i>Scutellaria galericulata</i>	common skullcap
<i>Sedum telephium</i>	orpine, or live-long
" <i>acre</i>	biting stonecrop, or wall pepper
" <i>reflexum</i>	crooked yellow stonecrop
" <i>album</i>	white stonecrop
<i>Senecio Jacobææ</i>	common ragwort
" <i>aquaticus</i>	marsh ragwort
" <i>vulgaris</i>	common groundsel
" <i>sylvaticus</i>	mountain groundsel
<i>Sesleria cærulea</i>	blue moor grass
<i>Silene acaulis</i>	moss campion
" <i>inflata</i>	bladder campion
" <i>maritima</i>	sea campion
" <i>otites</i>	Spanish catchfly
" <i>nutans</i>	Nottingham catchfly
<i>Sinapis nigra</i>	black mustard
" <i>arvensis</i>	charlock
" <i>alba</i>	white mustard
<i>Sisymbrium Sophia</i>	flixweed
<i>Sium latifolium</i>	broad-leaved water parsnip
<i>Solanum dulcamara</i>	woody nightshade
" <i>nigrum</i>	black nightshade
" <i>tuberosum</i>	potato
<i>Solidago virgaurea</i>	golden rod
<i>Sonchus arvensis</i>	corn sow thistle
" <i>oleraceus</i>	common sow thistle
<i>Sparganium</i>	bur reed
<i>Spinacia</i>	spinach
<i>Spiræa ulmaria</i>	meadow sweet
<i>Stachys betonica</i>	betony
" <i>sylvatica</i>	hedge woundwort
" <i>arvensis</i>	corn woundwort
<i>Statice armeria</i>	sea pink, or thrift
" <i>limonium</i>	spreading spiked sea thrift, or sea lavender
<i>Stellaria uliginosa</i>	bog stitchwort
" <i>graminea</i>	lesser stitchwort
" <i>media</i>	common chickweed
" <i>holostea</i>	greater stitchwort
<i>Stratiotes aloides</i>	water aloe, or water soldier
<i>Symphoricarpos racemosus</i>	snowberry
<i>Symphytum officinale</i>	common comfrey
<i>Syringa vulgaris</i>	lilac
<i>Tamus communis</i>	black bryony
<i>Tanaceum vulgare</i>	tansy
<i>Taraxacum dens leonis</i>	dandelion
<i>Teucrium scorodonia</i>	wild germander, or wood sage
<i>Thalictrum minus</i>	lesser meadow rue
" <i>flavum</i>	common meadow rue

<i>Thymus serpyllum</i>	wild thyme
<i>Tilia intermedia</i>	lime tree
<i>Trifolium repens</i>	Dutch clover, white clover, or shamrock
" <i>procumbens</i>	hop trefoil
<i>Tripolium vulgare</i>	sea starwort
<i>Triticum repens</i>	couch grass
" <i>juncum</i>	rushy sea wheat grass
<i>Tropæolum</i>	garden nasturtium
<i>Tussilago farfara</i>	coltsfoot
<i>Typha latifolia</i> ..	reed mace
<i>Ulex europæus</i>	common furze
" <i>nanus</i>	dwarf furze
<i>Ulmus campestris</i>	elm
" <i>montana</i>	wych elm
<i>Urtica dioica</i>	nettle, or stinging nettle
<i>Vaccinium myrtillus</i>	bilberry
" <i>vitis idæa</i>	whortleberry
<i>Valerian officinalis</i>	officinal valerian
<i>Verbascum lychnitis</i>	white mullein
" <i>pulverulentum</i>	yellow hoary mullein
" <i>nigrum</i>	dark mullein
" <i>blattaria</i>	moth mullein
<i>Veronica chamædrys</i>	germander speedwell
<i>Viburnum tinus</i>	laurestinus
" <i>lantana</i>	mealy guelder rose, or wayfaring tree
" <i>opulus</i>	guelder rose
<i>Vicia cracca</i>	tufted vetch
" <i>sylvatica</i>	wood vetch
" <i>lutea</i>	yellow vetch
" <i>sativa</i>	common vetch
" <i>sepium</i>	bush vetch
<i>Viola odorata</i>	sweet violet
" <i>canina</i>	dog violet
" <i>tricolor</i>	wild heartsease
<i>Vitis vinifera</i>	vine

APPENDIX II.

A List of British Lepidoptera,

WITH THE TIMES OF THEIR APPEARANCE.

ABBREVIATIONS.—The Roman numerals are used to indicate the Months, thus:—
 I January; II February; III March; IV April; V May; VI June; VII July; VIII August;
 IX September; X October; XI November; XII December. The abbreviations used for the
 Nomenclators' names are as follow:—*B.* Boisduval, *Ba.* Barrett, *Be.* Bedell, *Ben.* Bentley,
Bjer. Bjerkander, *Bk.* Borkhausen, *Bou.* Bouché, *Br.* Bruand, *C.* Curtis, *Clk.* Clerck, *Craw.*
Crewe. *D.* Duponchel, *Db.* Doubleday, *Desv.* Desvignes, *Dg.* Douglas, *Don.* Donovan, *E.*
Esper. *Ed.* Edleston, *Evers.* Eversmann, *F.* Fabricius, *Fisch.* Dr. F. Fischer, *Fors.* Forster,
F.R. Fischer E. von Rolerstamm, *Frr.* Freyer, *Fro.* Frolich, *Fu.* Fuessly, *G.* Guenée, *Gm.*
Germar. *Go.* Goetze, *Gregs.* Gregson, *H.* Hubner, *Hchw.* Hochenwarth, *Hey.* Heyden, *Hf.*
Hufnagel. *Hml.* Hummel, *H.S.* Herrich Schaffer, *Htch.* Hatchet, *Hw.* Hawarth, *Ill.* Illiger,
K. Kirby, *Kn.* Knoch, *Kol.* Kollar, *Kngs.* Knaggs, *L.* Linné, *Lch.* Leach, *Ld.* Lederer,
Lef. Lefebvre, *Lnig.* Lienig, *Lo.* Logan, *Ls.* Laspeyres, *Lt.* Latreille, *M.* Mann, *Mc.*
McLachlin. *N.* Newman, *Ni.* Nicelli, *O.* Ochsenheimer, *Ol.* Olivier, *P.* Panzer, *Pal.* Palmer,
Pey. Peyerimhoff, *Rbr.* Rambur, *Rt.* Rottemburg, *Rtz.* Ratzburg, *S.* Scopoli, *S.V.*
Systematisches Verzeichniss der Wiener Gegend, Sax. Saxesen, *Sc.* Scott, *Schlg.* Schlager,
Si. Sircom, *Sk.* Schrank, *So.* Sodoffsky, *Ss.* Stephens, *Stn.* Stainton, *Tau.* Tauscher, *Tengs.*
Tengstrom. *Thnb.* Thunberg, *Ti.* Tischer, *Tr.* Treitsche, *V.* Vieweg, *Va.* Vaughan, *Vill.* de
 Villers, *Wd.* Wood, *Wk.* Wocke, *Wlk.* Wilkinson, *Wsd.* Westwood, *Z.* Zeller, *Zk.* Zincken,
Zitt. Zetterstedt.

DIURNI.

PAPILIONIDÆ

PAPILIO, L.

	OVA	LARVÆ	PUPÆ	IMAGOS
MACHAON, <i>L.</i>.....VI		VI to VIII	VIII	V to VII

PIERIDÆ

LEUCOPHASIA, Ss.

SINAPIS, <i>L.</i>V VI and VIII	VI and IX x	VII & IX to IV	IV V and VIII
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PIERIS, Sk.

CRATÆGI, <i>L.</i>VI	VIII to V	VI	V VI VII
BRASSICÆ, <i>L.</i>V and VIII	VI and IX	VII & IX to IV	IV to VIII
RAPÆ, <i>L.</i>.....V and VIII	VI and IX	VII & IX to IV	IV to VIII
NAPI, <i>L.</i>.....V and VIII	VI and IX	VII & IX to IV	IV to VIII
DAPLIDICE, <i>L.</i>V and VIII	VI and IX	VII & IX to IV	V and VIII

ANTHOCHARIS, B.

CARDAMINES, <i>L.</i>V	VII	VII to V	IV V VI
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RHODOCERIDÆ

GONOPTERYX, L.

RHAMNI, <i>L.</i>IV	VI VII	VII	VII to V
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COLIAS, F.

EDUSA, <i>F.</i>V to IX	VI VII	VIII	VI to VIII to IV
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HYALÆ, <i>L.</i>V	VII	VIII	VII VIII to IV
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VANESSIDÆ

<i>ARGYNNIS, F.</i>	OVA	LARVÆ	PUPÆ	IMAGOS
<i>PAPHIA, L.</i>VII		VIII to VI	VI	VI VII
<i>AGLAIA, L.</i> .....VIII		VIII to VI	VI	VI VII
<i>NIOBE, L.</i> .....VIII		VIII to V	VI	VI VII
<i>ADIPPE, S. V.</i> .....VIII		VIII to VI	VI	VI VII
<i>LATONA, L.</i> .....VIII IX		VIII to V	VI	VIII IX
<i>EUPHROSYNE, L.</i> .....VI		VII to V	IV	V VI and s. VIII
<i>SELENE, S. V.</i> .....VI		VII to V	V	V VI and s. VIII
<i>MELITÆA, F.</i>				
<i>ARTEMIS, S. V.</i> .....VI		VIII to IV	IV	V VI
<i>CINXIA, L.</i> .....VI		VII to V	V	V VI
<i>ATHALIA, E.</i> .....VII		VIII to V	VI	VI VII
<i>VANESSA, F.</i>				
<i>C-ALBUM, L.</i> .....V and VII		V and VIII	VI and IX	VI VII & IX to IV
<i>URTICÆ, L.</i> .....IV V and VII		V VI and VIII	VI and VIII	VI VII & IX to IV
<i>POLYCHLOROS, L.</i> .....V s. X		S. X to V VI	VII	VII to V
<i>ANTIOPA, L.</i> .....V		VI VII	VII	VII to V
<i>IO, L.</i> .....IV V		VI VII	VII	VII VIII to V
<i>ATALANTA, L.</i> .....V		VI VII	VII	VII VIII to VI
<i>CARDUI, L.</i> .....VI		VI VII to IX	VII to IX	VII to V
<i>NYMPHALIDÆ</i>				
<i>LIMENITIS, F.</i>				
<i>SIBYLLA, L.</i> .....VII		VIII to V	VI	VI VII
<i>APATURA, F.</i>				
<i>IRIS, L.</i> .....VII		VIII to V	VI	VII
<i>SATYRIDÆ</i>				
<i>ARGE, B.</i>				
<i>GALATEA, L.</i> .....VII		VIII to V	VI	VII
<i>EREBIA, B.</i>				
<i>EPIPHRON, Kk.</i>		VIII to V		VI VII
<i>MEDEA, S. V.</i> .....VIII		IX to V	VI	VII VIII
<i>SATYRUS, F.</i>				
<i>ÆGERIA, L.</i> .....V and VIII		VI VII & IX to III	IV and VII	IV and VII VIII
<i>MEGÆRA, L.</i> .....V and VIII		VI VII & IX to IV	IV and VII	V and VIII
<i>SEMELE, L.</i> .....VII		VIII to VI	VI	VII
<i>IANIRA, L.</i> .....VII		VIII to V	VI	VI VII
<i>TITHONUS, O.</i> .....VII		VIII to VI	VI	VII
<i>HYPERANTHUS, L.</i> .....VII		VIII to VI	VI	VI VII
<i>CENONYMPHA, H.S.</i>				
<i>DAVUS, L.</i> .....VI		VIII to V	VI	VI VII
<i>PAMPHILUS, L.</i> .....V		V VI and VIII	IV and VII	V to X
<i>LYCÆNIDÆ</i>				
<i>THECLA, F.</i>				
<i>RUBI, L.</i> .....V		VII and X	VIII to IV	V VI and s. VIII
<i>QUERCUS, L.</i> .....VII to IV		V VI	VI	VII
<i>W-ALBUM, Kk.</i> .....VII to IV		V VI	VI	VI VII
<i>PRUNI, L.</i> .....VII to III		V VI	VI	VI VII
<i>BETULÆ, L.</i> .....X		V VI	VII	VII VIII
<i>POLYOMMATUS, Lk.</i>				
<i>HIPPOTHOE, L.</i> .....VIII		VIII to VI [to IV VII		VII VIII
<i>PHLOEAS, L.</i> .....VI and X		V VI & VIII & X IV and X		IV & VI VIII & X
<i>LYCÆNA, F.</i>				
<i>BÆTICA, L.</i>		VII to IX		VIII IX
<i>ÆGON, S. V.</i> .....VII to II		V VI	VI	VII VIII

	OVA	LARVÆ	PUPÆ	IMAGOS
ARTAXERXES, <i>F.</i>		v	vi	vi
AGESTIS, <i>S.V.</i>.....viii		vii and ix to iv	iv and vii	v vi and viii
ALEXIS, <i>S.V.</i>.....v and ix		iv and viii	v and viii	v vi and viii ix
ADONIS, <i>S.V.</i>.....x		v and vii viii	v and viii	v vi and viii
CORYDON, <i>S.</i>.....ix		x to vi	vii	vii viii
ACIS, <i>S.V.</i>				vi vii
ALSUS, <i>S.V.</i>.....vi		vii	iv	v vi
ARGIOLUS, <i>L.</i>		vi and ix		iv v and viii
ARION, <i>L.</i>.....vi		vii to iv?		vi
<i>ERYCINIDÆ</i>				
NEMEOBIUS, <i>Ss.</i>				
LUCINA, <i>L.</i>.....vi		vii to ix	viii to v	v vi
<i>HESPERIDÆ</i>				
SYRICHTHUS, <i>B.</i>				
ALVEOLUS, <i>H.</i>.....v		iv		v and s. viii
THANAOS, <i>B.</i>				
TAGES, <i>L.</i>.....v		vii and ix to iv		v and viii
<i>HESPERIA, B.</i>				
PANISCUS, <i>E.</i>.....vi		ix		vi
SYLVANUS, <i>E.</i>.....vii		v and vii		v vi and viii
COMMA, <i>L.</i>.....viii to iii		vi		vii viii
LINEA, <i>S.V.</i>.....vii		viii to vi		vii
ACTÆON, <i>E.</i>		vi	vii	vii viii

NOCTURNI

*SPHINGIDÆ*SMERINTHUS, *O.*

OCCELLATUS, <i>L.</i>	viii	ix to v	v vi
POPULI, <i>L.</i>v	viii ix		v vi
TILIÆ, <i>L.</i>	viii ix		v vi

ACHERONTIA, *O.*

ATROPOS, <i>L.</i>	ix x	ix to vi	vii and s. x
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SPHINX, *O.*

CONVOLVULI, <i>L.</i>	vii		viii ix
LIGUSTRI, <i>L.</i>	ix	x to v	vi

DEILEPHILA, *O.*

EUPHORBIAE, <i>L.</i>	viii ix		vi to ix
GALII, <i>S.V.</i>	viii ix x		vi to viii
LINEATA, <i>F.</i>	vi vii		viii ix

CHÆROCAMPA, *D.*

CELERIO, <i>L.</i>	viii ix		viii to x
PORCELLUS, <i>L.</i>	viii	x to v	v vi
ELPENOR, <i>L.</i>	viii	x to v	vi
NERII, <i>L.</i>	ix		vi to x

MACROGLOSSA, *O.*

STELLATARUM, <i>L.</i>.....v	viii ix		v and ix to ii
FUCIFORMIS, <i>L.</i>.....vi	vii viii		v vi
BOMBYLIFORMIS, <i>O.</i>	vii viii		v vi

*SESIDÆ*SESIA, *F.*

MYOPÆFORMIS, <i>Bk.</i>	iv v		v vi
CULICIFORMIS, <i>L.</i>	iv		v vi
FORMICÆFORMIS, <i>E.</i>	iv v	v	vi
CHRYSIDIFORMIS, <i>E.</i>	vi		vi vii

	OVA	LARVÆ	PUPÆ	IMAGOS
ICHNEUMONIFORMIS, <i>F.</i>		VII		VI VII
CYNIPIFORMIS, <i>O.</i>		IV V	V	V VI
MUSCÆFORMIS, <i>V.</i>		VII to IX	V	VI VII
TIPULIFORMIS, <i>L.</i>		X to IV	V	VI
ANDRENIFORMIS, <i>Ls.</i> ..				VI
SCOLIÆFORMIS, <i>Bk.</i>		IV		VI VII
SPHEGIFORMIS, <i>F.</i>		IV	V	V VI
ASILIFORMIS, <i>Rt.</i>		IV	V	VI
BEMBECIFORMIS, <i>H.</i>		IX to V	V	VII
APIFORMIS, <i>L.</i>		IX to IV	V	V VI
<i>ZENZERIDÆ</i>				
MACROGASTER, <i>D.</i>				
ARUNDINIS, <i>H.</i>		IV		VI
ZENZERA, <i>Lt.</i>				
ÆSCULI, <i>L.</i>	VII	VIII to V	VI	VI VII
COSSUS, <i>F.</i>				
LIGNIFERDA, <i>F.</i>	VII	IX X	XI to V	VI VII
<i>HEPIALIDÆ</i>				
HEPIALUS, <i>F.</i>				
HECTUS, <i>L.</i>	VI	VIII to V	VI	VI
LUPULINUS, <i>L.</i>		VIII to V	V	V VI
SYLVINUS, <i>L.</i>		VII		VII VIII
VELLEDA, <i>H.</i>		VIII to V	V	VI VII
HUMULI, <i>L.</i>		VIII to IV		VI
<i>COCLIOPIDÆ</i>				
LIMACODES, <i>Lt.</i>				
ASELLUS, <i>S.V.</i>		VIII IX	X	VI VII
TESTUDO, <i>S.V.</i>		IX	X	VI
<i>PROCRIDÆ</i>				
PROCRIS, <i>F.</i>				
STATICES, <i>L.</i>		V	VI	VI
GERVON, <i>H.</i>		V		V VI
GLOBULARIÆ, <i>H.</i>		V		VI
<i>ZYGÆNIDÆ</i>				
ZYGÆNA, <i>F.</i>				
MINOS, <i>S.V.</i>		V		VII
NUBIGENA, <i>Ld.</i>		VII to IV		VI
EXULANS, <i>Hckw.</i>				VII
TRIFOLI, <i>E.</i>		VII to V	VI	VI
MELILOTI, <i>E.</i>		VI		VI VII
LONICERÆ, <i>E.</i>		VII to V	VI	VI
FILIPENDULÆ, <i>L.</i>		VII to V	VI	VI
<i>SYNTOMIDÆ</i>				
SYNTOMIS, <i>III.</i>				
PHEGEA, <i>L.</i>		IX to V		VI VII VIII
NACLIA, <i>B.</i>				
ANCILLA, <i>L.</i>				VI
<i>NOLIDÆ</i>				
NOLA, <i>Lch.</i>				
CUCULLATELLA, <i>L.</i>		V	V	VI VII
CONFUSALIS, <i>H.S.</i>		V	V	V VI
STRIGULA, <i>S.V.</i>		V		VI VII
CENTONALIS, <i>H.</i>				VII
ALBULALIS, <i>H.</i>				VII

LITHOSIDÆ

	OVA	LARVÆ	PUPÆ	IMAGOS
NUDARIA, <i>Ss.</i>				
SENEX, <i>H.</i>		v vi		vii viii
MUNDANA, <i>L.</i>		v vi		vii
SETINA, <i>Ss.</i>				
IRRORELLA, <i>L.</i>		v		vi to viii
CALLIGENIA, <i>D.</i>				
MINIATA, <i>Forst.</i> .....vii		viii to v vi		vi vii
LITHOSIA, <i>F.</i>				
MESOMELLA, <i>L.</i>		viii to v		vi vii
MUSCERDA, <i>Hf.</i>		v vi		vii viii
AUREOLA, <i>H.</i>		ix to v		v vi vii
PYGMAOLA, <i>Db.</i>		iv to vi		viii
CANIOLA, <i>H.</i>		vi		viii
DEPLANA, <i>E.</i>		vi	v vi	vi vii
LURIDEOLA, <i>Tr.</i>		viii to v vi	v vi	vi vii
MOLYBDEOLA, <i>G.</i>		vii to v	vi	vii
COMPLANA, <i>L.</i>		viii to v vi	vi	vii
GRISEOLA, <i>H.</i>		viii to vi	vi	vi vii
STRAMINEOLA, <i>Db.</i>		viii to vi		vi to viii
QUADRA, <i>L.</i>		v vi	vi	vii viii
RUBRICOLLIS, <i>L.</i>		viii ix x	iii	v to vii
EULEPIA, <i>C.</i>				
GRAMMICA, <i>L.</i>		v		vi vii
CRIBRUM, <i>L.</i>		viii to v		vii
<i>EUCHELIDÆ</i>				
DEIOPEIA, <i>Ss.</i>				
PULCHELLA, <i>L.</i>		vii		v to ix
EUCHELIA, <i>B.</i>				
JACOBÆ, <i>L.</i>		v		vi vii
CALLIMORPHA, <i>Lt.</i>				
HERA, <i>L.</i>		ix to v		viii
DOMINULA, <i>L.</i>		viii to v		vi
<i>CHELONIDÆ</i>				
EUTHEMONIA, <i>S.</i>				
RUSSULA, <i>L.</i> .....vi		ix to v		vi and s. viii
CHELONIA, <i>Lt.</i>				
PLANTAGINIS, <i>L.</i>		viii to iv	v	v vi
CAIA, <i>L.</i>		viii to vi		vii
VILLICA, <i>L.</i> .....vii		viii to v		vi
ARCTIA, <i>B.</i>				
FULGINOSA, <i>L.</i>		iv and viii		v vi and viii
MENDICA, <i>L.</i>		viii	ix to iv	iv to vi
LUBRICIPEDA, <i>L.</i>		viii	ix to v	v vi
MENTHRASTI, <i>S.V.</i>		viii	ix to v	v vi
URTICÆ, <i>E.</i>		viii	x to v	vi
<i>LIPARIDÆ</i>				
LIPARIS, <i>O.</i>				
CHRYSORRHÆA, <i>L.</i>		ix to v		vii viii
AURIFLUA, <i>F.</i>		ix to v		vii
SALICIS, <i>L.</i> .....viii		viii to v	vi	vii viii
DISPAR, <i>L.</i> .....viii to iii		v		vi vii
MONACHA, <i>L.</i> .....viii to iii		v to vii	vii	vii viii
ORGYIA, <i>O.</i>				
PUDIBUNDA, <i>L.</i> .....v vi		viii ix	ix to iv	v vi

	OVA	LARVÆ	PUPÆ	IMAGOS
INA, <i>L.</i>		IX to V		VI
A, <i>H.</i>		VIII		VI to VIII
IGMA, <i>L.</i> .....VI VII		IX to V		VI VII s. VIII
IA, <i>L.</i> .....VII		VII to IX		VII VIII X
IAS, <i>Ss.</i>				
, <i>L.</i>		VI VII & s. X	X	IV VI s. IX
<i>YCIDÆ</i>				
CHIURA, <i>Ss.</i>				
GI, <i>L.</i> .....IX to III		V VI	VII	VIII IX
ILOCAMPA, <i>Ss.</i>				
, <i>L.</i> .....XI to III		V VI	VIII to X	XI XII
OGASTER, <i>G.</i>				
CRIS, <i>L.</i> .....IV		V to VII	VII to I	II III IV
BYX, <i>L.</i>				
RIA, <i>L.</i> .....VII to III		V to VII	VII	VII VIII
ENSIS, <i>L.</i> .....VII to III		VI VII		VII VIII
<i>L.</i>		IX to V		V VI
s, <i>Ss.</i>		IX to VI		VI VII VIII
JS, <i>L.</i>		IX to V		VII VIII
II, <i>S.V.</i>		IX to VI		VII
NESTIS, <i>Gm.</i>				
ORIA, <i>L.</i>		IX to V	VI	VII
OCAMPA, <i>Lt.</i>				
FOLIA, <i>L.</i>		IX to V	VI	VI
LIA, <i>L.</i>		VIII		IV V
ROMIS, <i>O.</i>				
OLORA, <i>L.</i> .....IV		VI VII	VIII to III	III IV
URNIA, <i>Ss.</i>				
II, <i>S.V.</i>		VIII	X to IV	IV V

GEOMETRÆ

*PTERIDÆ*APTERYX, *Lch.*

CATA, <i>L.</i>	IX to V	VI	VII
MIDÆ			
ONE, <i>D.</i>			
TARIA, <i>L.</i> .....VII to IV	V VI	VI	VI VII
RIA, <i>S. V.</i> .....VIII to IV	V VI	VI	VII VIII
ARIA, <i>H.</i> .....V VI	VIII		V VI VII
FIA, <i>D.</i>			
GATA, <i>L.</i> .....IV and IX	VI & IX to III		IV to IX
ILIA, <i>D.</i>			
ATA, <i>L.</i>	IX		V VI
ERONA, <i>D.</i>			
RIA, <i>L.</i>	X to IV	V	VI VII
ROCAMPA, <i>Lt.</i>			
RITATA, <i>L.</i>	IX to V	VI	VI VII
OPIA, <i>Ss.</i>			
RIA, <i>L.</i>	IX to IV	V VI	VI VII VIII
YMENE, <i>D.</i>			
RARIA, <i>L.</i>	VIII IX	X to V	V VI
ICALLIA, <i>Ss.</i>			
ARIA, <i>L.</i>	IX to VI	VI	VI VII and s. VIII

SELENIA, <i>H.</i>	OVA	LARVÆ	PUPÆ	IMAGOS
ILLUNARIA, <i>H.</i>	IV and VII	VI and IX		III IV and VII
LUNARIA, <i>S. V.</i>		VIII	VIII to IV	IV V VI
ILLUSTRARIA, <i>H.</i>		VI and IX x		IV V and VII VIII
ODONTOPERA, <i>Ss.</i>				
BIDENTATA, <i>L.</i>		VIII IX	IX to IV	IV V
CROCALLIS, <i>T.</i>				
ELINGUARIA, <i>L.</i>	VIII to II	V	VI	VII VIII
ENNOMOS, <i>T.</i>				
ALNIARIA, <i>L.</i>	IX to V	VII VIII	VIII	IX X
TILIARIA, <i>Bk.</i>	IX to V	VI VII	VIII	VIII IX
FUSCANTARIA, <i>Hw.</i>	IX to V	VI VII	VIII	VIII IX
EROSARIA, <i>S. V.</i>	IX to V	VI	VII	VII to IX
ANGULARIA, <i>S. V.</i>	IX to IV	VI to VIII	VI VII	VII to IX
HIMERA, <i>D.</i>				
PENNARIA, <i>L.</i>	X to IV	V	VIII IX	X XI
AMPHIDASYDÆ				
PHIGALIA, <i>D.</i>				
PILOSARIA, <i>S. V.</i>		V VI	IX to XI	XII to III
NYSSIA, <i>D.</i>				
ZONARIA, <i>S. V.</i>		V VI		IX to IV?
HISPIDARIA, <i>S. V.</i>	IV	V VI	VI to I	II III
LAPPONARIA, <i>B.</i>				
BISTON, <i>Lch.</i>				
HIRTARIA, <i>L.</i>	IV	VI VII	IX	III IV V
AMPHIDASIS, <i>T.</i>				
PRODOMARIA, <i>S. V.</i>		VI VII	VIII to II	II III IV
BETULARIA, <i>L.</i>		VIII to X	X to IV	V VI
BOARMIDÆ				
HEMEROPHILA, <i>Ss.</i>				
ABRUPTARIA, <i>Thnb.</i>		VI	IX to IV	IV V VI VIII
CLEORA, <i>C.</i>				
VIDUARIA, <i>S. V.</i>				VI
GLABRARIA, <i>H.</i>		V VI	VI	VII
LICHENARIA, <i>Hf.</i>		IX to V		VI VII
BOARMIA, <i>Tr.</i>				
REPANDATA, <i>L.</i>	VII	IX to IV	V	VI VII
RHOMBOIDARIA, <i>S. V.</i>	VII	IX to IV	V	VI VII
PERFUMARIA, <i>N.</i>	VII	IV to VI		VI VII
ABIETARIA, <i>S. V.</i>	VII	IX to VI	VI	VII
CINCTARIA, <i>S. V.</i>	VI	IX		V VI
ROBORARIA, <i>S. V.</i>	VII	IX to V	V	VI VII
CONSORTARIA, <i>F.</i>	VII	VIII		VI VII
TEPHROSIA, <i>B.</i>				
CONSONARIA, <i>H.</i>		VII VIII	X to IV	V
CREPUSCULARIA, <i>S. V.</i> ..		VIII IX	X to I	II III IV
BIUNDULARIA, <i>E.</i>		VI	X to III	IV V
EXTERSARIA, <i>H.</i>		VIII IX	X to V	VI
PUNCTULATA, <i>S. V.</i>		VIII	X to IV	V VI
GNOPHOS, <i>T.</i>				
OBSCURATA, <i>S. V.</i>	VII VIII	IX to V		VII
DASYDIA, <i>G.</i>				
OBFUSCATA, <i>S. V.</i>	VII	IX to VI		VII VIII
PSODOS, <i>T.</i>				
TREPIDARIA, <i>H.</i>				VII

MNIOPHILA, <i>B.</i>	OVA	LARVÆ	PUPÆ	IMAGOS
CINERARIA, <i>S.V.</i>		v vi		vii
BOLETOBIDÆ				
BOLETOBIA, <i>B.</i>				
FULIGINARIA, <i>L.</i>		vii		vi
GEOMETRIDÆ				
PSEUDOPTERPNA, <i>H.S.</i>				
CYTISARIA, <i>S.V.</i>		v vi		vi vii
GEOMETRA, <i>B.</i>				
PAPILIONARIA, <i>L.</i>		x to v	vi	vi vii
SMARAGDARIA, <i>F.</i>		v		vii
NEMORIA, <i>H.</i>				
VRIDATA, <i>L.</i>	vi	viii	ix to iv	v vi
IODIS, <i>H.</i>				
VERNARIA, <i>L.</i>		ix to vi		vii
LACTEARIA, <i>L.</i>		ix	x to v	v vi
PHORODESMA, <i>B.</i>				
BAULARIA, <i>S.V.</i>	vi vii	vii to v		vi vii s. ix
HEMITHEA, <i>D.</i>				
THYMIARIA, <i>L.</i>		v		vi vii
EPHIRIDÆ				
EPHYRA, <i>D.</i>				
PORATA, <i>F.</i>		ix	ix to iv	v vi
PUNCTARIA, <i>L.</i>		vii to ix	viii to iv	v vi and s. vii
TRILINEARIA, <i>Bk.</i>		viii to x	ix to iv	v vi
OMICRONARIA, <i>S.V.</i>		viii to x		v vi
ORBICULARIA, <i>H.</i>		viii		v vi
PENDULARIA, <i>L.</i>		vii	viii to iv	iv v vi and s. vii
ACIDALIDÆ				
HYRIA, <i>Ss.</i>				
AURORARIA, <i>H.</i>		viii to v		v vi vii
ASTHENA, <i>H.</i>				
LUTEATA, <i>S.V.</i>		viii to x		v vi
CANDIDATA, <i>S.V.</i>		iv		v vi
SYLVATA, <i>S.V.</i>		viii		vi vii
BLOMERARIA, <i>Dk.</i>		viii ix		v vi vii
EUPISTERIA, <i>B.</i>				
HEPARATA, <i>S.V.</i>		viii ix		vi vii
VENUSIA, <i>C.</i>				
CAMBRICARIA, <i>G.</i>		viii ix		vi vii
ACIDALIA, <i>T.</i>				
OCHRATA, <i>S.</i>				vi
PEROCHRARIA, <i>Fisch.</i> ..				vi
RUBRICATA, <i>S.V.</i>	vii	viii to v		vi vii
SCUTULATA, <i>S.V.</i>	vii	viii to v		vi vii
BISETATA, <i>Hf.</i>	vii	viii to v		vi vii
TRIGEMINATA, <i>Hw.</i>	vi	vii		vi and vii
CONTIGUARIA, <i>H.</i>		viii to v		vi vii
HERBARIATA, <i>F.</i>		x to v		vi vii
RUSTICATA, <i>S.V.</i>	vii	viii to v		vii
OSSEATA, <i>S.V.</i>		viii to iv		vi
DILUTARIA, <i>H.</i>				vi vii
INTERJECTARIA, <i>B.</i>		viii to v		vi vii
HOLOSERICATA, <i>D.</i>	vii	vii to v		vi vii
INCANARIA, <i>H.</i>	vii	ix		vi vii viii

	OVA	LARVÆ	PUPÆ	IMAGOS
CIRCELLATA, <i>G.</i> .....VII		VIII		VI
ORNATA, <i>S.</i> .....VII		VII s. to IV		V to VIII
PROMUTATA, <i>G.</i>		s. VII VIII to V		VI VIII IX
STRAMINATA, <i>T.</i> .....VII		VII to V		VI VII
MANCUNIATA, <i>Kngs.</i>		VII		VII VIII
SUBSERICEATA, <i>Hw.</i> .....VII		VII		VI VII VIII
STRIGARIA, <i>H.</i>		VI		VI
IMMUTATA, <i>L.</i>		VIII to V		VI VII and s. IX
REMUTATA, <i>H.</i>		VIII to IV		V VI
FUMATA, <i>Ss.</i> .....VII		VIII to V		VI
STRIGILATA, <i>S. V.</i> .....VII		VIII to VI		VII
IMITARIA, <i>H.</i>		V VI		VIII
EMUTARIA, <i>H.</i> .....VII		VII to V		VI VIII
AVERSATA, <i>L.</i> .....VII		IX to V		VI VII
INORNATA, <i>Hw.</i>		VIII		VI VII
DEGENERARIA, <i>H.</i>		VIII to IV		VI VII
EMARGINATA, <i>L.</i> .....VII		VII		VI VII
TIMANDRA, <i>B.</i>				
AMATARIA, <i>L.</i> .....VII		IX to V		VI VII
<i>CABERIDÆ</i>				
CABERA, <i>Tr.</i>				
PUSARIA, <i>L.</i>		VII to IX		V VI
ROTUNDARIA, <i>Hw.</i>		IX		V
EXANTHEMARIA, <i>S.</i>		X	X to V	V VI
CORYCIA, <i>D.</i>				
TEMERATA, <i>S. V.</i> .....VI		VII		V VI
TAMINATA, <i>S. V.</i>		VII		V VI
ALEUCIS, <i>G.</i>				
PICTARIA, <i>C.</i>		VII?		IV
<i>MACARIDÆ</i>				
MACARIA, <i>C.</i>				
ALTERNATA, <i>S. V.</i>		IX		VI VII
NOTATA, <i>L.</i>		IX		V VI
LITURATA, <i>L.</i>		IX	X to IV	V VI VII
HALIA, <i>D.</i>				
VAUARIA, <i>L.</i>		V		VII
<i>FIDONIDÆ</i>				
STRENIA, <i>D.</i>				
CLATHRATA, <i>L.</i>		X to IV		V VI
PANAGRA, <i>G.</i>				
PETRARIA, <i>H.</i> .....V		VI		V VI
NUMERIA, <i>D.</i>				
PULVERARIA, <i>L.</i>		VII VIII		*IV V VI
SCODIONA, <i>B.</i>				
BELGIARIA, <i>H.</i> .....VI		VIII to IV		V VI
SELIDOSEMA, <i>H.</i>				
PLUMARIA, <i>S. V.</i>		V		VII VIII
FIDONIA, <i>Tr.</i>				
CARBONARIA, <i>L.</i>		VII		IV V
ATOMARIA, <i>L.</i>		VII to V		V VI
PINIARIA, <i>L.</i> .....VI		VIII IX		IV V VI
PINETARIA, <i>H.</i> .....VII to III		IV V		VI VII
CONSPICUATA, <i>S. V.</i> ....VII		VIII IX	IX to V	VI VII

MINOA, <i>Tr.</i>	OVA	LARVÆ	PUPÆ	IMAGOS
EUPHORIATA, <i>S.V.</i> ....VII		VIII IX	x to v	v VII VIII
SCORIA, <i>Ss.</i>				
DEALBATA, <i>L.</i> .....VI		IX to v	v VI	VI
STERRA, <i>H.</i>				
SACRARIA, <i>L.</i> .....VIII		VI and IX		v VII VIII IX x
LYTHRIA, <i>H.</i>				
PURPURARIA, <i>L.</i>		VIII?		v VI VII
APLASTA, <i>H.</i>				
ONONARIA, <i>Fu.</i>		IV and IX		v VII VIII
ASPILATES, <i>Tr.</i>				
STRIGILLARIA, <i>H.</i> .....VI		VIII to v	v	VI VII
CITRARIA, <i>H.</i> .....v and VIII		VII and x	VIII	v and VIII
GILVARIA, <i>S.V.</i>		IX to VI		VIII
ZERENIDÆ				
ABRAXAS, <i>Lch.</i>				
GROSSULARIATA, <i>L.</i>	v		VI	VI VII VIII
ULMATA, <i>F.</i>	IX			VI VII
LIGDIA, <i>G.</i>				
ADUSTATA, <i>S.V.</i> .....VII		v VI	IX to IV	v VI VII
LOMASPILIS, <i>H.</i>				
MARGINATA, <i>L.</i>		VI and IX		v and VIII
LIGIDÆ				
PACHYCNEMIA, <i>Ss.</i>				
HIPPOCASTANARIA, <i>H.</i> ...		IX to v		v
HYBERNIDÆ				
HYBERNIA, <i>Lt.</i>				
RUPICAPRARIA, <i>S.V.</i> ....II	v		VII to I	XII I II
LEUCOPHEARIA, <i>S.V.</i> ...III	v VI		VII to I	I II III
AURANTIARIA, <i>H.</i> .....XI to III	VI VII		VII to IX	x XI
PROGEMMARIA, <i>H.</i>	v VI		VII to I	II III
DEFOLIARIA, <i>L.</i> .....XI to III	v		VII to I	x XI XII
ANISOPTERYX, <i>Ss.</i>				
ÆSCULARIA, <i>S.V.</i>	v VI		x to I	II III IV
LARENTIDÆ				
CHEIMATOBIÆ, <i>Ss.</i>				
BRUMATA, <i>L.</i> .....XI to III	v			XI XII
BOREATA, <i>H.</i> .....XI to III	VI			x XI XII
OPORABIA, <i>Ss.</i>				
DILUTATA, <i>S.V.</i> .....XI to III	v VI			IX to XII
FILIGRAMMARIA, <i>H.S.</i> ...IX to II	II to IV			VIII IX
LARENTIA, <i>Tr.</i>				
DIDYMATA, <i>L.</i>	IV v			VI
MULTISTRIGARIA, <i>Hw.</i> ...IV	VI			IV
CÆSIATA, <i>S.V.</i> .....VII	IX to v			VI
RUFICINCTATA, <i>G.</i>	v			VII
SALICATA, <i>H.</i>				VI VII
OLIVATA, <i>S.V.</i> .....VIII	x to IV			VI VII VIII
PECTINITARIA, <i>Fu.</i>	VIII IX			v VI
EMMELESIA, <i>Ss.</i>				
AFFINITATA, <i>Ss.</i>	VIII			VI
ALCHEMILLATA, <i>L.</i>	VIII IX			VI
ALBULATA, <i>S.V.</i> .....VI	VIII		x to IV	v VI
DECOLORATA, <i>H.</i>	VII			VI

	OVA	LARVÆ	PUPÆ	IMAGOS
TÆNIATA, <i>Ss.</i>		VIII?		VI VII
UNIFASCIATA, <i>H.</i> .....VIII		IX X		VI VII
BIFASCIATA ?				VII VIII
ERICETATA, <i>C.</i>				VI VII
BLANDIATA, <i>S. V.</i>		IX		V VI VII VIII
EUPITHECIA, <i>C.</i>				
VENOSATA, <i>F.</i>		VII		V VI
CONSIGNATA, <i>Bk.</i>		VI	IX to IV	V VI
LINARIATA, <i>S. V.</i>		VIII	IX to IV	V VI
PULCELLATA, <i>Ss.</i>		VII	IX to IV	V VI
CENTAUREATA, <i>S. V.</i> ..		VIII IX		V to VIII
SUCCENTURIATA, <i>L.</i>		VIII IX		VII
VALERIANATA, <i>H.</i>		VII		VI
SUBFULVATA, <i>Hw.</i>		IX X		VI to VIII
SUBUMBRATA, <i>S. V.</i>		VIII IX		VI
PERNOTATA, <i>G.</i>				
PLUMBEOLATA, <i>Hw.</i>		VII VIII		V VI
ISOGRAMMATA, <i>Tr.</i>		VII VIII		VI
PYGMÆATA, <i>H.</i>		VI VII		V VI
HELVETICATA, <i>B.</i>		IX		IV V
ARCEUTHATA, <i>Frr.</i>		X		VII
SATYRATA, <i>H.</i>		IX		V VI
EGENARIA, <i>H. S.</i>				VI
CASTIGATA, <i>H.</i>		VIII to X		V VI
TRISIGNATA, <i>H. S.</i>		IX		VI VII
LARICIATA, <i>Frr.</i>		VII		V VI
VIRGAUREATA, <i>Db.</i>		VIII IX		V VI
ALBIPUNCTATA, <i>Hw.</i> ..		IX		V VI
PUSILLATA, <i>S. V.</i>		VI VII		V
IRRIGUATA, <i>H.</i>		VI		IV V VI
PIMPINELLATA, <i>H.</i>		VI and IX		IV V and VIII
FRAXINATA, <i>Crw.</i>		VIII IX	X to IV	V to VII
EXTENSARIA, <i>Frr.</i>				VI
INNOTATA, <i>H.</i>		VIII IX	X	VI VII
INDIGATA, <i>H.</i>		VII		V VI and VIII
CONSTRUCTATA, <i>G.</i>		IX		VII VIII
NANATA, <i>H.</i>		VIII IX to V		V VI and s. VIII
SUBNOTATA, <i>H.</i>		VIII IX		VI VII
CAMPANULATA, <i>H. S.</i> ..		VIII IX		VI VII
VULGATA, <i>Hw.</i>		VII and IX		IV V and VII
EXPALLIDATA, <i>G.</i>		IX		VII VIII
ABSYNTHIATA, <i>L.</i>		IX X		VI VII
MINUTATA, <i>G.</i>		VIII IX to V		VI
ASSIMILATA, <i>Db.</i>		— and IX X		V and VIII
TENUIATA, <i>H.</i>		III IV		VI VII
SUBCILIATA, <i>G.</i> .....VIII to IV		V		VII
DODONEATA, <i>G.</i>		VI VII		IV V VI
ABBREVIATA, <i>Ss.</i>		VI VII		III IV
EXIGUATA, <i>H.</i>		IX X		V VI
SOBRINATA, <i>H.</i> .....VII		V VI		VII
TOGATA, <i>H.</i>		VIII		VI
PUMILATA, <i>H.</i>		VI and —		IV V and VII VIII
CORONATA, <i>H.</i>		VII VIII		IV V

	OVA	LARVÆ	PUPÆ	IMAGOS
RECTANGULATA, <i>L.</i>		IV V	V VI	VI
DEBILIATA, <i>H.</i>		IV V		VI
COLLIX, <i>G.</i>				
SPARSATA, <i>H.</i>		VIII IX		VI
LOBOPHORA, <i>C.</i>				
SEXALATA, <i>H.</i>		IX		V VI
HEXAPTERATA, <i>S.V.</i> ..		VIII		IV V
VIRETATA, <i>H.</i>		VII VIII		V VI
LOBULATA, <i>H.</i>	IV	VIII		III IV
POLYCOMMATA, <i>S.V.</i> ..IV V		VI		IV
THERA, <i>Ss.</i>				
JUNIPERATA, <i>L.</i>		VIII IX		X
SIMULATA, <i>H.</i>		VI and X		IV V and VIII
VARIATA, <i>S.V.</i>		VII and III to V		VI and VIII
FIRMATA, <i>H.</i>		IV V		VII and IX
YPSIPETES, <i>Ss.</i>				
RUBERATA, <i>Frr.</i>		IX	IV	V VI
IMPLUVIATA, <i>S.V.</i>		VIII IX	III IV	V
ELUTATA, <i>H.</i>	VII	X to V	VI	VI VII
MELANTHIA, <i>D.</i>				
RUBIGINATA, <i>S.V.</i>	VII to IV	V VI		VII
OCCELLATA, <i>L.</i>	VI	VII VIII	VIII to V	V VI
ALBICILLATA, <i>L.</i>	V	VIII IX	VIII to V	V VI VII
MELANIPPE, <i>D.</i>				
HASTATA, <i>L.</i>		VIII	IX to V	VI VII
TRISTATA, <i>L.</i>	Taken among junipers, in Scotland.			VI
LUCTUATA, <i>H.</i>		VIII IX	XI to V	VI VII
Probably confounded with Tristata.				
PROCELLATA, <i>S.V.</i> ....VII		VIII IX	X to V	V VI VII
UNANGULATA, <i>Hw.</i>		VII VIII		VI VII
RIVATA, <i>H.</i>		VI and IX		VII VIII
SOCIATA, <i>Bk.</i>		VI and IX		V and VII
MONTANATA, <i>S.V.</i> ....VI VII VIII		X to III	IV	V VII VIII
GALIATA, <i>S.V.</i>		VII and IX		V VI and IX
FLUCTUATA, <i>L.</i>		VI and IX		IV V and VIII
ANTICLEA, <i>Ss.</i>				
SINUATA, <i>S.V.</i>		VIII		VI
RUBIDATA, <i>S.V.</i> ....VI VII		VIII	X to V	VI
BADIATA, <i>S.V.</i>	III	VI	VII to III	III IV
DERIVATA, <i>S.V.</i>	III IV	VI	VII to III	III IV V
BERBERATA, <i>S.V.</i>		VI and IX		V and VIII
COREMIA, <i>G.</i>				
MUNITATA, <i>H.</i>	VI	X to III	IV	VI VII
PROPUGNATA, <i>S.V.</i>		IX		V VI
FERRUGATA, <i>L.</i>	V	VII and IX		V VI and VIII
UNIDENTARIA, <i>Hw.</i>		VIII		V VI and VIII
QUADRIFASCIARIA, <i>G.</i> ..		IV V and VIII		VI VII
CAMPTOGRAMMA, <i>Ss.</i>				
BILINEATA, <i>L.</i>		IV		VI VII
FLUVIATA, <i>H.</i>	VII	VIII	IX	VII and IX to V
PHIBALAPTERYX, <i>Ss.</i>				
TERSATA, <i>S.V.</i>		IX		VI VII
LAPIDATA, <i>H.</i>		V VI		—? and VIII
LIGNATA, <i>H.</i>	VII and IX	VIII & IX to IV		V VI VII VIII

	OVA	LARVÆ	PUPÆ	IMAGOS
POLYGRAMMATA, <i>Bk.</i> ..				III and VIII IX
VITALBATA, <i>S. V.</i> .....VII VIII		VI and x		v VI and VIII
SCOTOSIA, <i>Ss.</i>				
DUBITATA, <i>L.</i> .....IV		VI	VII	VIII to III
VETULATA, <i>S. V.</i> .....VII to III?		VI		VI VII
RHAMNATA, <i>S. V.</i>		v VI	VI	VII VII
CERTATA, <i>H.</i>		VI VII		v VI
UNDULATA, <i>L.</i>		IX x		VI VII
CIDARIA, <i>Tr.</i>				
PSITTACATA, <i>S. V.</i>		VII VIII	IX	IX x XI to III
MIATA, <i>L.</i>		VIII	IX	IX x to v
PICATA, <i>H.</i> .....VII		VIII	IX to v	VI VII
CORYLATA, <i>Thnb.</i> .....VI		VIII IX		v VI
SAGITTATA, <i>F.</i> .....VII		VIII	x to v	VII
RUSSATA, <i>S. V.</i> .....v and VIII		VII and x to IV	VII and v	v VI and VIII
IMMANATA, <i>Hw.</i> .....VIII to III		v to VII		VII VIII IX
SUFFUMATA, <i>S. V.</i>		IX x	III	IV v
SILACEATA, <i>S. V.</i>		VII and IX	VII and x to IV	v VI and VIII
RETICULATA, <i>S. V.</i>				VII
PRUNATA, <i>L.</i> .....VII to IV		v VI	VI	v VI VII
TESTATA, <i>L.</i> .....VIII to IV		v	VI	VII and IX
POPULATA, <i>S. V.</i> .....VIII to IV		v		VII
FULVATA, <i>For.</i> .....VII		v		VI VII
PYRALIATA, <i>S. V.</i> .....VIII to III		v		VII
DOTATA, <i>L.</i> .....VIII to IV				VI VII
PELURGA, <i>H.</i>				
COMITATA, <i>L.</i>		VIII IX	x to VI	VII
EUBOLIDÆ				
EUBOLIA, <i>D.</i>				
CERVINARIA, <i>S. V.</i> .....XI to IV		VI VII	VIII	IX x
MENSURARIA, <i>S. V.</i>		VI		VI VII VIII
MÆNIATA, <i>S.</i>		v		VIII
PALUMBARIA, <i>S. V.</i>		v		VI
BIPUNCTARIA, <i>S. V.</i>		x to v		VII
LINEOLATA, <i>S. V.</i> .....v and VIII		s. IV v VI & IX	x to IV	v VI VII VIII
CARSIA, <i>H.</i>				
IMBUTATA, <i>H.</i>		VI		VII
ANAITIS, <i>B.</i>				
PLAGIATA, <i>L.</i>		VII and x to IV		v VI and VIII IX
LITHOSTEGE, <i>H.</i>				
GRISEATA, <i>S. V.</i> .....VI		VII		VI VII
CHESIAS, <i>Tr.</i>				
SPARTIATA, <i>F.</i> .....x to IV		v VI		IX x
OBLIQUARIA, <i>S. V.</i>		VII VIII IX	VIII to IV	v VI VII
SIONIDÆ				
TANAGRA, <i>D.</i>				
CHÆROPHYLLATA, <i>L.</i> ..VII to II		v		VI VII
DREPANULIDÆ				
DREPANULULIDÆ				
PLATYPTERYX, <i>Le.</i>				
LACERTULA, <i>H.</i> .....VI		VI and VIII IX		IV v VII and s. IX
SICULA, <i>S. V.</i>		v VI		v VI
FALCULA, <i>S. V.</i>		VII and x	v	v and VIII

	OVA	LARVÆ	PUPÆ	IMAGOS
HAMULA, <i>S. V.</i>		VI and IX		V VI and s. VIII
UNGUICULA, <i>H.</i>	VI	VII and IX x		V VI and s. VIII
CILIX, <i>Lch.</i>				
SPINULA, <i>S. V.</i>		V VI and VII	VI and VII	V VI and VIII

PSEUDO-BOMBYCES

DICRANURIDÆ

DICRANURA, *Lt.*

BICUSPIS, <i>Bk.</i>	VIII IX x	x to IV	IV v
FURCULA, <i>L.</i> ... ..VI	VI VIII IX	IX to v	V VI VII
BIFIDA, <i>H.</i>	VII VIII IX	IX to IV	V VI VII
VINULA, <i>L.</i>	VII VIII	VIII to v	V VI
STAUROPOUS, <i>Gm.</i>			
FAGI, <i>L.</i>	VIII IX	x to v	VI VII
PETASIA, <i>Ss.</i>			
CASSINEA, <i>F.</i>	XI to IV	V VI	VII to x
NUBECULOSA, <i>E.</i>	IV	V VI	x XI XII
NYCTALIS, <i>L.</i>			III IV

PYGÆRIDÆ

PYGÆRA, *O.*

BUCEPHALA, <i>L.</i>	VII VIII IX	x to v	V VI VII
CLOSTERA, <i>Ss.</i>			
CURTULA, <i>L.</i>	IV and VII	v and VIII IX	VI & IX to III
ANACHOREATA, <i>S. V.</i>		VII	IV v and VII
RECLUSA, <i>S. V.</i>		VII and IX	VIII
NOTODONTIDÆ			v and VIII

GLUPHISIA, *B.*

CRENATA, <i>E.</i>	VIII		V VI
PTILOPHORA, <i>Ss.</i>			
PLUMIGERA, <i>S. V.</i>	XI to IV	V VI	x XI
PTILODONTIS, <i>Ss.</i>			
PALPINA, <i>L.</i>	VII and IX		V VI and VII
NOTODONTA, <i>O.</i>			
CAMELINA, <i>L.</i>	VI	VII and IX	V and VIII
CUCULLINA, <i>S. V.</i>		VIII IX	v and s. VIII
CARMELITA, <i>E.</i>		VI VII	III IV
DICTÆA, <i>L.</i>		VI and IX	V VII and VIII
DICTÆOIDES, <i>E.</i>	VI	VII and IX	V VI VII
DROMEDARIUS, <i>L.</i>	VI	VII & VIII IX	V VI and s. VIII
TRILOPHUS, <i>S. V.</i>		VII VIII IX	V to VIII
ZICZAC, <i>L.</i>		VI and IX	V and VIII
TREPIDA, <i>E.</i>		VIII	IV v VI
CHAONIA, <i>S. V.</i>		VI VII VIII	IV v
DODONEA, <i>S. V.</i>		VII VIII IX	V VI
DILOBA, <i>Ss.</i>			
CÆRULOCEPHALA, <i>L.</i> ..IX		V VI	VII VIII
			IX

NOCTUÆ

TRIFIDÆ

BOMBYCIFORMES

NOCTUO-BOMBYCIDÆ

THYATIRA, *O.*

DERASA, <i>L.</i>	VIII IX		VI VII
BATIS, <i>L.</i>	VIII IX	x to v	V VI VII & IX x
CYMATOPHORA, <i>Tr.</i>			
DUPLARIS, <i>L.</i>	VIII IX	x to v	V VI VII

	OVA	LARVÆ	PUPÆ	IMAGOS
FLUCTUOSA, <i>H.</i>		IX X	X to V	VI VII
DILUTA, <i>S. F.</i>		V VI	VII	VIII IX
OR, <i>S. F.</i>		VI VII VIII	IX X	VI VII
OCULARIS, <i>L.</i>		VII VIII IX	IX X	V VI
FLAVICORNIS, <i>L.</i>		VI VII	IX	III
RIDENS, <i>F.</i>	IV	VI VII	VIII	III IV
<i>BRYOPHILIDÆ</i>				
<i>BRYOPHILA, Tr.</i>				
GLANDIFERA, <i>S. F.</i> ....IX		X to IV V	VI	VII VIII
PERLA, <i>S. F.</i>		X to IV V VI	V VI	VII VIII IX
ALGÆ, <i>F.</i>				VII VIII
<i>BOMBYCOIDÆ</i>				
<i>DIPHThERA, O.</i>				
ORION, <i>E.</i>		VII VIII IX	X to V	VI VII
<i>ACRONYCTA, Tr.</i>				
TRIDENS, <i>S. F.</i>		VIII IX X	X to V	VI VII
PSI, <i>L.</i>		VIII IX	X to V	V VI VII
LEPORINA, <i>L.</i> .....V VI		VI VIII IX	X to V	V VI VII
ACERIS, <i>L.</i> .....VII		VIII IX	X	V VI VII
MEGACEPHALA, <i>S. F.</i> ..		VI VII VIII	IX to IV	V VI
STRIGOSA, <i>S. F.</i> .....VI		VII VIII IX	X to V	VI VII
ALNI, <i>L.</i>		VII VIII IX	VIII to IV	V VI VIII IX
LIGUSTRI, <i>S. F.</i>		VIII IX	X to V	V VI VII
RUMICIS, <i>L.</i> .....VI		VI VII VIII	IX to IV	V VI VII
AURICOMA, <i>S. F.</i>		VI VII	VII	VII VIII to V
MENYANTHIDIS, <i>E.</i>		VI VII VIII		VI
MYRICÆ, <i>G.</i>		VIII IX		V VI s. VII
SIMYRA, <i>O.</i>				
VENOSA, <i>Bk.</i> .....VI		VIII IX		VI
<i>GENUINÆ</i>				
<i>LEUCANIDÆ</i>				
<i>SYNIA, D.</i>				
MUSCULOSA, <i>H.</i>				VIII
<i>LEUCANIA, Tr.</i>				
CONIGERA, <i>S. F.</i>		III to V		VI VII
VITELLINA, <i>H.</i>		X to II		IX X XI
TURCA, <i>L.</i>		II III		VI VII
LITHARGYRIA, <i>E.</i>		I III IV V		VI VII to III?
ALBIPUNCTA, <i>S. F.</i>				VIII IX X s.
EXTRANEÆ, <i>G.</i>				IX
OBSOLETA, <i>H.</i>		VIII IX		VI VII
LOREYI, <i>D.</i>				VII
PUTRESCENS, <i>H.</i>		X		VII VIII
LITTORALIS, <i>C.</i> .....VII		VIII to IV V		VI VII
PUDORINA, <i>S. F.</i>		III IV		VI VII
COMMA, <i>L.</i> .....VI		VIII to IV		VI VII and s. X
L-ALBUM, <i>L.</i>				VI IX X
STRAMINEA, <i>Tr.</i>		II III IV		VI VII VIII
IMPURA, <i>H.</i> .....VII		X to III IV V		VI VII
PALLENS <i>L.</i> .....IX		X to III IV		VI VII VIII
PHRAGMITIDIS, <i>H.</i> .....VII		VIII to V		VI VII
<i>TAPINOSTOLA, Ld.</i>				
BONDII, <i>Kngs.</i>				VI VII
ELYMI, <i>Tr.</i>		V		VI VII

MELIANA, C.	OVA	LARVÆ	PUPÆ	IMAGOS
FLAMMEA, C.				V VI
SENTA, Ss.				
ULVÆ, H.		IX to III IV		VI VII
NONAGRIA, O.				
DESPECTA, Tr.				VI VII VIII
FULVA, H.	V VI			VIII IX
CONCOLOR, G.				VI
HELLMANNI, Evers	VI			VI
NEURICA, H.	IV V VI			VII VIII
BREVILINEA, Kngs.				VIII
GEMINIPUNCTA, Hitch. .	V VI		VII	VII VIII
CANNÆ, O.	V			VIII
TYPHÆ, E.	VII VIII			IX
LUTOSA, H. IX	X to VI		VII	VIII IX X
APAMIDÆ				
GORTYNA, O.				
FLAVAGO, S. V. IX		VII VIII	VIII IX	IX
HYDRÆCIA, G.				
NICTITANS, L.	V VI			VII VIII IX
PETASITIS, Db.	VI VII			VIII IX
MICACEA, E.	V VI VII			VIII IX X
AXYLIA, H.				
PUTRIS, L.		VIII	X to V	VI VII
XYLOPHASIA, Ss.				
RUREA, F.	IV		IV V	V VI VII
LITHOXVLEA, S. V.	V VI			VI VII
SUBLUSTRIS, E.				VI VII
POLYODON, L.	IV V			VI VII VIII
HEPATICA, Clk.	VIII to III IV			VI VII
SCOLOPACINA, E.	V			VII VIII
DIPTERYGIA, Ss.				
PINASTRI, L.	VIII IX			VI VII
XVLOMIGES, G.				
CONSPICILLARIS, L.	VI VII VIII			III IV V
APOROPHYLA, G.				
AUSTRALIS, B. X	X XI to III IV			VII VIII IX X
LAPHYGMA, G.				
EXIGUA, H. VII	VIII IX			VIII to X
NEURIA, G.				
SAPONARIÆ, Bk.	VII VIII			V VI VII VIII
HELIOPHOBUS, B.				
POPULARIS, F.	IV V		VI VII	VII VIII IX
HISPIDA, H.	XI			IX
CHARÆAS, Ss.				
GRAMINIS, L.	VI			VII VIII IX
PACHETRA, G.				
LEUCOPHÆA, S. V.	X to IV			V VI VII
CERIGO, Ss.				
CYTHAREA, F.	IX to IV			VII VIII
LUPERINA, B.				
TESTACEA, S. V.	III			VIII IX
GUENÉEII, Db.				VIII
DUMERILI, D.				VIII IX
CESPITIS, S. V.	IV V VI			VIII IX

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	OVA	LARVÆ	PUPÆ	IMAGOS
CURSORIA, <i>Hf.</i>		V VI VII		VII VIII
NIGRICANS, <i>L.</i>VII		V VI		VII VIII
TRITICI, <i>L.</i>		VI VII		VII VIII
AQUILINA, <i>S. V.</i>		V		VII VIII
OBELISCA, <i>S. V.</i>		V		VIII
AGATHINA, <i>D.</i>		IV V	VI VII	VIII IX
PORPHYREA, <i>S. V.</i> .....VII		VIII to IV V		VI VII VIII
PRÆCOX, <i>L.</i>		V VI VII	VII	VII VIII X
RAVIDA, <i>S. V.</i>		IV V		VI VII VIII
HELVETINA, <i>B.</i>				VII
PYROPHILA, <i>S. V.</i>		VIII		VI VII VIII
LUCERNEA, <i>L.</i>		II III IV	VI	VII
ASHWORTHII, <i>Db.</i>		IX X to III IV V		VII VIII
TRIPHÆNA, <i>O.</i>				
IANTHINA, <i>S. V.</i>		VIII to IV V		VII VIII
FINBRIA, <i>L.</i> .....IX		X to III IV V		VI VII VIII
INTERJECTA, <i>H.</i>		III IV		VII VIII
SUBSEQUA, <i>S. V.</i>		X to III IV		VII VIII
ORBONA, <i>Hf.</i> .....VII		VIII to IV V		VI VII VIII
PRONUBA, <i>L.</i> .....VII		VIII to III IV V VI		V VI VII VIII
NOCTUA, <i>L.</i>				
GLAREOSA, <i>E.</i>		VI		VIII IX
DEPUNCTA, <i>L.</i>		IV V		VII VIII
AUGUR, <i>F.</i> .....VII		VIII to IV V		VI VII VIII
PLECTA, <i>L.</i> .....VI		VII to IV		VI VII VIII
FLAMMATRA, <i>S. V.</i>				VII
C-NIGRUM, <i>L.</i>		IV and X		V VI VII VIII IX
DITRAPEZIUM, <i>Bk.</i>		V		VII
TRIANGULUM, <i>Hf.</i>		IV V		VI VII
RHOMBOIDEA, <i>E.</i>		IX to IV V		VII VIII
BRUNNEA, <i>S. V.</i>		IV V		VI VII VIII
FESTIVA, <i>S. V.</i> .....VII		VII to V		VI VII VIII
CONFLUA, <i>Tr.</i> .....VII		VIII to V		VI VII VIII
DAHLII, <i>H.</i>		IX X XI to IV V		VI VII VIII IX
SUBROSEA, <i>Sz.</i>		V VI		VII
RUBI, <i>V.</i>		VI VII		V VI VII VIII
UMBROSA, <i>H.</i>		VIII to IV V		VII VIII
BAIA, <i>S. V.</i>		IV V		VI VII VIII
SOBRINA, <i>G.</i>				VII VIII
NEGLECTA, <i>H.</i>		X to V		VII VIII IX
XANTHOGRAPHIA, <i>S. V.</i> ...VIII IX		X to IV V		VII VIII
<i>ORTHOSIDÆ</i>				
TRACHEA, <i>H.</i>				
PINIPERDA, <i>P.</i>		VI VII	VIII to II	III IV
PACHNOBIA, <i>G.</i>				
ALPINA, <i>Wsd.</i>				VII VIII
TÆNIOCAMPA, <i>G.</i>				
GOTHICA, <i>L.</i> .....IV		V VI VII VIII	VII to III	III IV V
GOTHICINA (?) <i>H. S.</i>				III IV
LEUCOGRAPHIA, <i>S. V.</i> ...IV		VI VII		III IV
RUBRICOSA, <i>S. V.</i> .....IV		V VI VII	VIII to III	III IV V
INSTABILIS, <i>S. V.</i>		V VI VII	VIII to III	III IV
OPIMA, <i>H.</i> .....IV		V VI		III IV V
POPULETI, <i>F.</i> .....IV		VI VII	VII to III	III IV V

	OVA	LARVÆ	PUPÆ	IMAGOS
STABILIS, <i>S. V.</i>		v vi vii	viii to iii	iii iv
GRACILIS, <i>S. V.</i> .....v		v vi vii	viii to iii	iii iv
MINIOSA, <i>S. V.</i> .....iv		v vi	vii to ii	iii iv
MUNDA, <i>S. V.</i>		v vi	vii to iii	iii iv
CRUDA, <i>S. V.</i>		v vi vii	viii to iii	iii iv
ORTHOSIA, <i>Tr.</i>				
SUSPECTA, <i>H.</i>		v		vii viii
UPSILON, <i>S. V.</i>		v vi	vi	vi vii
LOTA, <i>L.</i> .....x		iv to vi		ix x
MACILENTA, <i>H.</i>		iv v		ix x
ANCHOCELIS, <i>G.</i>				
RUFINA, <i>L.</i>		v		viii ix x
PISTACINA, <i>S. V.</i>		iv v vi		viii ix x
LUNOSA, <i>Hw.</i> .....x		x to iv		ix x
LITURA, <i>L.</i>		v vi		vii viii ix
CERASTIS, <i>O.</i>				
VACCINII, <i>L.</i>		vi vii		ix x xi to iii iv
SPADICEA, <i>G.</i>		v vi		ix x xi to iii iv
ERYTHROCEPHALA, <i>S. V.</i>		v		ix x xi to iii
SCOPELOSOMA, <i>C.</i>				
SATELLITIA, <i>L.</i> .....iii		v vi		ix x xi to ii iii iv
DASYCAMPA, <i>G.</i>				
RUBIGINEA, <i>S. V.</i> .....iii		v vi vii		ix x xi to iii
HOPORINA, <i>B.</i>				
CROCEAGO, <i>S. V.</i> .....iv		v vi	vii	ix x to iii iv
XANTHIA, <i>O.</i>				
CITRAGO, <i>L.</i>		v vi	viii	viii ix
CERAGO, <i>S. V.</i>		iv v	viii	vi vii viii ix
SILAGO, <i>H.</i>		iv to vi		viii ix x
AURAGO, <i>S. V.</i>		v vi		viii ix x
GILVAGO, <i>E.</i>		v vi	viii	viii ix
FERRUGINEA, <i>S. V.</i>		iv v vi	vii viii	viii ix x
CIRRHOEDIA, <i>G.</i>				
XERAMPHELINA, <i>H.</i> .....viii ix		x to v vi vii	vii viii	viii ix
COSMIDÆ				
TETHEA, <i>O.</i>				
SUBTUSA, <i>S. V.</i> .....vii viii		iv v		vii viii
RETUSA, <i>L.</i> .....ix		v vi		vii viii ix
EUPERIA, <i>G.</i>				
FULVAGO, <i>S. V.</i>		vi		vii viii ix
DICYCLA, <i>G.</i>				
Oo, <i>L.</i>		v vi		vi vii viii
COSMIA, <i>O.</i>				
TRAPEZINA, <i>L.</i> .....viii		iv v vi		vii viii
PYRALINA, <i>S. V.</i>		iv v		viii
DIFFINIS, <i>L.</i>		v vi		vii viii
AFFINIS, <i>L.</i>		v		vii viii
HADENIDÆ				
EREMOBIA, <i>Ss.</i>				
OCHROLEUCA, <i>S. V.</i>		v vi		vii viii ix
DIANTHÆCIA, <i>B.</i>				
IRREGULARIS, <i>Hf.</i>		viii		vi vii
CARPOPHAGA, <i>Bk.</i> .....vi		vii viii s. ix x	x to iv	v vi vii
CAPSOPHILA, <i>D.</i> .....vi		v vi to ix		vi vii viii s. ix

	OVA	LARVÆ	PUPÆ	IMAGOS
CAPSINCOLA, <i>S. V.</i>.....VI		VII VIII IX		v vi and VIII
CUOUBALI, <i>S. V.</i>.....VI		VII VIII		v vi and VIII
ALBIMACULA, <i>Bk.</i>		VII		VI
CONSPERSA, <i>S. V.</i>		VII VIII IX		VI VII
COMPTA (?) <i>S. V.</i>		VII		v VI
CÆSIA, <i>S. V.</i>.....VI		VII VIII		VI VII
BARRETTII, <i>Dk.</i>				VI
HECATERA, <i>G.</i>				
DYSODEA, <i>S. V.</i>		VII VIII		VI VII
SERENA, <i>S. V.</i>		VII VIII	IX to v	VI VII
POLIA, <i>O.</i>				
CHI, <i>L.</i>		IV v	VI	VII VIII IX
XANTHOMISTA, <i>H.</i>		VI VII	VII	VIII IX
FLAVICINCTA, <i>S. V.</i>....x		VI VII		VIII IX
DASYPOLIA, <i>G.</i>				
TEMPLI, <i>Thmb.</i>.....III		IV v VI VII	VIII	IX x XI II III IV
EPUNDA, <i>D.</i>				
LUTULENTA, <i>S. V.</i>....x		x to III IV		VIII IX
NIGRA, <i>Hw.</i>		v VI		VIII IX x
VIMINALIS, <i>F.</i>.....VIII		IV v VI		VII VIII
LICHENEÆ, <i>H.</i>.....x		XI to VI VII	VI VII	VIII IX
VALERIA, <i>Gm.</i>				
OLEAGINA, <i>S. V.</i>		v VI		III IV
MISELIA, <i>Sr.</i>				
BIMACULOSA, <i>L.</i>		v		VIII
OXYACANTHÆ, <i>L.</i>		v VI VII	VIII	IX x
AGRIOPIS, <i>B.</i>				
APRILINA, <i>L.</i>		VI VII	VII VIII IX	IX x
PHLOGOPHORA, <i>O.</i>				
METICULOSA, <i>L.</i>		XI to IV		IV to x
EMFYREA, <i>H.</i>.....IX x		XI to IV v		IX x
EUPLEXIA, <i>Sr.</i>				
LUCIPARA, <i>L.</i>.....VI		VIII IX		v VI VII
APLECTA, <i>G.</i>				
HERBIDA, <i>S. V.</i>		VIII to IV		VI VII
OCCULTA, <i>L.</i>		IV v		VI VII VIII IX
NEBULOSA, <i>Hf.</i>		x to IV v		VI VII VIII
TINCTA, <i>Brahm.</i>		IX x to IV v		VI VII VIII
ADVENA, <i>S. V.</i>		VIII IX to III IV		VI VII x
HADENÆ, <i>O.</i>				
SATURA, <i>S. V.</i>		VI		VIII
ADUSTA, <i>E.</i>.....VII		VII VIII IX	IV	v VI VII
PROTEA, <i>S. V.</i>		v VI	VII	VIII IX
GLAUCA, <i>H.</i>		VII VIII	IX to v	VI VII
DENTINA, <i>S. V.</i>		v VI		v VI VII
PEREGRINA, <i>Tr.</i>		v VI VII	VII	VIII IX
CHENOPODII, <i>S. V.</i>.....VI		VII VIII IX		v VI VII VIII
ATRIPLICIS, <i>L.</i>		VIII IX		VI
SUASA, <i>S. V.</i>		VII VIII x?		v VI s. VIII
OLERACEA, <i>L.</i>		VIII IX	x to IV	VI VII
PISI, <i>L.</i>		VIII IX x		v VI VII
THALASSINA, <i>Bk.</i>		VII VIII	VIII to v	v VI VII
CONTIGUA, <i>S. V.</i>		VIII IX		v VI VII
GENISTÆ, <i>Bk.</i>		VII VIII IX		v VI
RECTILINEA, <i>E.</i>.....VI		VIII IX to III		v VI VII

<i>XYLINIDÆ</i>	OVA	LARVÆ	PUPÆ	IMAGOS
<i>XYLOCAMPA, G.</i>				
<i>LITHORIZA, Bk.</i>		VI VII VIII	x to II	III IV
<i>CLOANTHA, B.</i>				
<i>PERSPICILLARIS, L.</i>		VII VIII		V
<i>SOLIDAGINIS, H.</i>		V VI		VIII IX
<i>CALOCAMPA, Ss.</i>				
<i>VETUSTA, H. III IV</i>		IV V VI	VIII	VIII IX x to III
<i>EXOLETA, L. IV</i>		IV V VI VII	VIII	VIII IX x to III II
<i>XYLINA, Tr.</i>				
<i>LAMBDA, F.</i>		V VI		IX x
<i>FURCIFERA, Hf. III</i>		V VI	VII	VIII IX x to IV
<i>RHIZOLITHA, S. V.</i>		V VI VII		IX x XII to III IV
<i>SEMIBRUNNEA, Hw.</i>		VII		IX x to III IV
<i>PETRIFICATA, S. V. V</i>		V VI VII		IX x to III IV
<i>CUCULLIA, Sk.</i>				
<i>VERBASI, L.</i>		VI VII	IX	IV V
<i>SCROPHULARIÆ, S. V. ..</i>		VI VII		V
<i>LYCHNITIS, Rbr.</i>		VII VIII IX		VI VII
<i>ASTERIS, S. V.</i>		VIII IX		V VI VII
<i>GNAPHALII, H.</i>		VII VIII		VI
<i>ABSINTHII, L.</i>		VIII IX		VI VII and IX
<i>CHAMOMILLÆ, S. V.</i>		V VI s. VIII	VII & IX to XII	IV V VII and XI
<i>UMBRATICA, L. VI VII</i>		VII VIII IX	IX	VI VII
<i>HELIOTHIDÆ</i>				
<i>HELIOTHIS, O.</i>				
<i>MARGINATA, F.</i>		VII VIII		V VI VII and IX
<i>PELTIGERA, S. V.</i>		VII VIII		VI to IX to IV
<i>ARMIGERA, H.</i>		VI VII		VIII IX x
<i>DIPSACEA, L.</i>		VIII IX	x to V	VI VII
<i>SCUTOSA, S. V.</i>		VII		VIII
<i>ANARTA, Tr.</i>				
<i>MELANOPE, Thnb.</i>				VI
<i>CORDIGERA, Thnb.</i>		VIII		V VI
<i>MYRTILLI, L.</i>		s. VII to x & s. III IV		V VI VII
<i>HELIODES, G.</i>				
<i>ARBUTI, F.</i>		VI VII		V VI
<i>AGROPHILA, B.</i>				
<i>SULPHURALIS, L.</i>		VI VII VIII		VI VII VIII
<i>MINORES</i>				
<i>ACONTIIDÆ</i>				
<i>ACONTIA, Tr.</i>				
<i>LUCTUOSA, S. V. VI</i>		V to VII		V VI VII VIII IX
<i>SOLARIS, S. V.</i>				VII
<i>ERASTRIIDÆ</i>				
<i>ERASTRIA, Tr.</i>				
<i>VENUSTULA, H.</i>		VIII		V VI VII
<i>FUSCULA, S. V.</i>		VIII IX		VI VII
<i>BANKSIA, G.</i>				
<i>ARGENTULA, H.</i>		VIII	IX	VI
<i>ANTHOPHILIDÆ</i>				
<i>HYDRELIA, G.</i>				
<i>UNCA, S. V.</i>		VII VIII		VI VII
<i>MICRA, G.</i>				
<i>OSTRINA, H.</i>				VI VII
<i>PARVA, H.</i>				VI

	OVA	LARVÆ	PUPÆ	IMAGOS
PAULA, <i>H.</i>				VI?
PHALÆNOIDÆ				
BREPHOS, <i>O.</i>				
PARTHENIAS, <i>L.</i>		VI VII VIII	IX	III IV
NOTHA, <i>H.</i>		VI		III IV
QUADRIFIDÆ				
VARIEGATÆ, <i>G.</i>				
PLUSIIDÆ				
ABROSTOLA, <i>O.</i>				
URTICÆ, <i>H.</i>		VIII IX	X to V	VI VII VIII
TRIPLASIA, <i>L.</i>		VIII IX	X to V	VI VII VIII
PLUSIA, <i>Tr.</i>				
ORICHALCEA, <i>P.</i>		VI VII		VII VIII
CHRYSTITIS, <i>L.</i>		VI VII IX to IV	V	VI VII VIII
BRACTEA, <i>S.V.</i>		V VI	VI	VII VIII
FESTUCÆ, <i>L.</i>		V VI VII VIII	VI	VIII
IOTA, <i>L.</i>		IV to VI	VI	VI VII VIII
V-AUREUM, <i>G.</i>		V		VI VII
GAMMA, <i>L.</i>		IV VII VIII IX		IV to X
NI, <i>H.</i>				V VI and VIII
VERTICILLATA, <i>G.</i>				
INTERROGATIONIS, <i>L.</i> ..		V VI		VI VII VIII
GONOPTERIDÆ				
GONOPTERA, <i>La.</i>				
LIBATRIX, <i>L.</i>		VI VII	VII	VIII IX to II to V
INTRUSÆ				
AMPHIPYRA, <i>Tr.</i>				
PYRAMIDEA, <i>L.</i>		V VI		VII VIII IX
TRAGOPOGONIS, <i>L.</i>		V VI		VII VIII IX
MANIA, <i>Tr.</i>				
TYPICA, <i>L.</i>	VII VIII	IX X to IV	V	VI VII
MAURA, <i>L.</i>		IX X to IV V	VI	VII VIII
TOXOCAMPIDÆ				
TOXOCAMPA, <i>G.</i>				
PASTINUM, <i>Tr.</i>	V			VI VII
CRACCÆ, <i>S.V.</i>	VI			VII
STILBIIDÆ				
STILBIA, <i>Ss.</i>				
ANOMALA, <i>Hw.</i>	I II			VII VIII IX
LIMBATÆ				
CATEPHIA, <i>O.</i>				
ALCHYMISTA, <i>S.V.</i>	VIII			V
CATOCALA, <i>O.</i>				
FRAXINI, <i>L.</i>	VII		VIII	VIII IX X
NUPTA, <i>L.</i>	V VI VII		VII VIII	VII VIII IX X
PROMISSA, <i>S.V.</i>	V VI			VII VIII
SPONSA, <i>L.</i>	VIII	IV V VI	VI VII	VII VIII
SERPENTINÆ				
OPHIODES, <i>G.</i>				
LUNARIS, <i>S.V.</i>	VII			V VI
EUCLIDIA, <i>Tr.</i>				
MI, <i>L.</i>	V			V VI
GLYPHICA, <i>L.</i>	V			V VI
PHYTOMETRA, <i>Hw.</i>				
ÆNEA, <i>S.V.</i>		VIII IX		V VI VI

DELTOIDES

HYPENIDÆ	LARVÆ	IMAGOS	HERMINIIDÆ	LARVÆ	IMAGOS
MADOPA, <i>Ss.</i>			RIVULA, <i>G.</i>		
SALICALIS, <i>S.V.</i> ....VI?	VI VII		SERICALIS, <i>S.</i> ....V		VI VII
HYPENA, <i>Tr.</i>			SOPHRONIA, <i>G.</i>		
PROBOSCIDALIS, <i>L.</i> ...VII to IV	VI VII to X		EMORTUALIS, <i>S.V.</i> IX X		VI VII
ROSTRALIS, <i>L.</i> ....VI	VII to IX to II		HERMINIA, <i>Tr.</i> [IV V VI		
CRASSALIS, <i>F.</i> .....VII VIII IX	VI VII [IV		DERIVALIS, <i>H.</i> ....VIII IX X to		VI VII VIII
HYPENODES, <i>G.</i>			BARBALIS, <i>L.</i> .....IX III IV		V VI VII
ALBISTRIGALIS, <i>Hw.</i>	VI VII VIII		TARSIPENNALIS, <i>Tr.</i> VIII X to IV		VI VII & IX
COSTÆSTRIGALIS, <i>Ss.</i> VII VIII	VII VIII		GRISEALIS, <i>S.V.</i> ....VIII IX X		VI VII
SCHRANKIA, <i>H.S.</i>			CRIBRALIS, <i>H.</i> .....VIII to IV VI		VII
TURFOSALIS, <i>Wk.</i> ..	VII				

AVENTIÆ

AVENTIDÆ	
AVENTIA, <i>D.</i>	
FLEXULA, <i>F.</i> .....IV V	VI VII VIII

PYRALIDES

ODONTIIDÆ		NASCIA, <i>C.</i>	
ODONTIA, <i>D.</i>		CILIALIS, <i>H.</i>	VI VII
DENTALIS, <i>S.V.</i> ....V	VII VIII	STENIA, <i>G.</i>	
PYRALIS, <i>L.</i>		PUNCTALIS, <i>S.V.</i> ..	VI VII
FIMBRIALIS, <i>S.V.</i> ..	VI to X	HYDROCAMPIDÆ	
FARINALIS, <i>L.</i> ....IV	VI to IX	CATACLYSTA, <i>H.</i>	
GLAUCINALIS, <i>L.</i> ...IV V VI	VI to IX	LEMNALIS, <i>L.</i> .....IV V	VI VII VIII
AGLOSSA, <i>Lt.</i>		PARAPONYX, <i>Ss.</i>	
PINGUALIS, <i>L.</i> ...III IV	VI VII	STRATIOTALIS, <i>L.</i> ...III IV	V to VIII
CUPREALIS, <i>H.</i> ....V	VI VII	HYDROCAMPA, <i>Lt.</i>	
CLEDEOBIA, <i>Ss.</i>		NYMPHÆALIS, <i>L.</i> ...IV	VI VII
ANGUSTALIS, <i>S.V.</i> ...V VI	VI VII	STAGNALIS, <i>Don.</i> ...IV	VI VII
ENNYCHIIDÆ		ACENTROPUS, <i>C.</i>	
PYRAUSTA, <i>Ss.</i>		NIVEUS, <i>Ol.</i> .....VI VII	VI VII VIII
PUNICEALIS, <i>S.V.</i> ...VI VII	V VII & VIII	BOTYDÆ	
PURPURALIS, <i>L.</i> ....VI VII	V VI VII	BOTYS, <i>Lt.</i>	
OSTRINALIS, <i>H.</i> ....VI VII	V VI & VIII	LUPULINALIS, <i>Clk.</i> ...VII & X	V & X
RHODARIA, <i>G.</i>		PANDALIS, <i>H.</i>	VI
SANGUINALIS, <i>L.</i> ...VII and IX	VI & VIII	FLAVALIS, <i>S.V.</i> ....V?	VII VIII
HERBULA, <i>G.</i>		HYALINALIS, <i>H.</i>	VII
CESPITALIS, <i>S.V.</i> ...VI	V VII & VIII	VERTICALIS, <i>S.V.</i> ...V	VI VII
ENNYCHIA, <i>Tr.</i> [to IV		LANCEALIS, <i>S.V.</i> ...VIII IX	V VI VII
CINGULARIS, <i>L.</i> ...VII VIII & IX	V VII & VIII	FUSCALIS, <i>S.V.</i> ...VIII	VI
ANGUINALIS, <i>H.</i>	V & VIII	TERREALIS, <i>Tr.</i> ....VII to IX to V	VI VII
OCTOMACULALIS, <i>L.</i>	V VI VII	ASINALIS, <i>H.</i> ....VII VIII & X IV	VII & IX
ASOPIIDÆ		URTICALIS, <i>L.</i> .....IX	VI VII
AGROTERA, <i>Ss.</i>		EBULEA, <i>G.</i>	
NEMORALIS, <i>S.</i> ....IV	V VI VII	CROCEALIS, <i>H.</i> ....IV V	VI VII
ENDOTRICHA, <i>Z.</i>		CATALAUNALIS, <i>D.</i> VIII	IX
FLAMMEALIS, <i>S.V.</i> V	VI VII	VERBASCALIS, <i>S.V.</i>	VI VII
STENIIDÆ		SAMBUCALIS, <i>S.V.</i> ...IX X	VI VII
DIASEMIA, <i>Ss.</i>		PIONEA, <i>G.</i>	
LITERALIS, <i>S.</i>	VII	FORFICALIS, <i>L.</i> ....VI VII IX X	VI VII VIII
RAMBURIALIS, <i>D.</i> ..	X	MARGARITALIS, <i>S.V.</i> VIII	VI VII
		STRAMENTALIS, <i>H.</i> ...	VII VIII

SPILODES, G.	LARVÆ	IMAGOS	SCOPARIA, Hw.	LARVÆ	IMAGOS
STICTICALIS, L.	VI VII & IX?	VI VII VIII	AMBIGUALIS, Tr.	IV V	VI VII
PALEALIS, S. V.	VIII IX	VI VII VIII	BASISTRIGALIS, Kngs.		VII
CINCTALIS, Tr.	VI	VI VII VIII	ZELLERI, Wk.		VI VII VIII
MARGARODES, G.			ULMELLA, Dale		VII
UNIONALIS, H.?	&c.	V to X	CEMBRÆ, Hw.	V	VII VIII
SCOPULA, Sâ.			SCOTICA, White		
ALPINALIS, S. V.	VI	VI VII VIII	DUBITALIS, H.		V VI
LUTEALIS, H.	V	VII VIII	MURANA, C.	III V	VI to IX
OLIVALIS, S. V.	IV V	VI VII	INGRATILLA, Z.		VI
PRUNALIS, S. V.	IV V	VI VII	LINEOLA, C.	VI VII	VIII
FERRUGALIS, H.	XI	VIII IX	MERCURELLA, L.	III IV	VI VII
DECREPITALIS, H. S.		? V VIII IX	CRATÆGELLA, H.	III	VII VIII
LEMIODES, G.			RESINEA, Hw.	IV	VII VIII
PULVERALIS, H.	VIII	VI VII	PHÆOLEUCA, Z.		VII VIII
MECYNÄ, G.			TRUNCICOLELLA, Sth.		VII VIII
POLYGONALIS, H.	X XI	VI	COARCTALIS, Z.	VII VIII	VIII IX X—IV
PLICATÆ			ATOMALIS, Db.		VI VII
SCOPARIIDÆ			GRACILALIS, Db. ..		VII
STENOPTERYX, G.			ALPINA, Dale		VII VIII
HYBRIDALIS, H.		VI & IX	PALLIDA, Ss.		VII VIII

GRAMBITES

CRAMBIDÆ		EROMENE, H.	
PLATYTES, G.		OCELLEA, Hw.	IX to II
CERUSSELLUS, S. V.	VI VII	CHILIDÆ	
CRAMBUS, F.		CHILO, Zh.	
ALPINELLUS, H.	VII VIII	CICATRICELLUS, H. v vi	VII
VERELLUS, Zh.?	VII VIII	PHRAGMITELLUS, H. x to vi	VI VII
FALSELLUS, S. V.	II—V	SCHÆNOBIUS, D.	
PRATELLUS, Cth. ..	V VI & VIII	FORFICELLUS, Thnb. v vi	VI VII
DUMETELLUS, H. ..	VI VIII	MUCRONELLUS, S. ...vi	VI VII
ERICELLUS, H.	VII VIII	GIGANTELLUS, S. V. v vi	VII
ADIPELLUS, Zh.	VI VIII	PHYCIDÆ	
HAMELLUS, Thnb. ..	VII VIII	ANERASTIA, H.	
PASQUELLUS, L.	VI VII VIII	LOTILLA, Zh.	IV V
ULIGINOSSELLUS, Z...	VI VII	FARRELLA, C.	IX
FURCATELLUS, Ztt.	VI VII VIII	ILITHYA, Lt.	
MARGARITELLUS, F.	VI VII VIII	CARNELLA, L.	V VI
MYELLUS, H.?	VII	MYELOPHILA, Tr.	
PINETELLUS, L.	VII VIII	CRIBRELLA, H.	X to III
LATISTRIELLUS, Hw.	VII VIII	CIRRIGERELLA, Zh.	
PERLELLUS, S.	VII VIII	MELISSOBLAPTES, Z.	
WARRINGTONELLUS, Z. var?	VII VIII	CEPHALONICA, Sth.	IX
SILASELLUS, H.	VII VIII	TRACHONITIS, Z.	
TRISTELLUS, S. V. ...	III	PRYERELLA, Va. ..	VIII IX
FASCELINELLUS, H. vi vii	VII VIII	HOMEOSOMA, G.	
INQUINATELLUS, S. V. v?	VII VIII	SINUELLA, F.	VII
CONTAMINELLUS, H.	VII VIII	NIMBELLA, Z.	IX X
GENICULELLUS, Hw.	VII VIII	NEBULELLA, S. V. ...	IX X
CULMELLUS, L.	III	BINÆVELLA, H.	V VI
CHRYSONYCHELLUS, S.	V VI	SAXICOLA, Va.	IX
RORELLUS, L.	V VI	SENECIONIS, Va. ...	VI
CASSENTINIELLUS, Z.	VI	NYCTEGRETES, Z.	
HORTUELLUS, H. ...	IV V	ACHATINELLA, H. ...	VII
PALUDELLUS, H. ...	VI		

EPHESTIA, G.	LARVÆ	IMAGOS	LARVÆ	IMAGOS
ELUTELLA, <i>H.</i> I II		VI VII	ORNATELLA, <i>S.V.</i> . .	VII VIII
FICELLA, <i>Dgl.</i> I		IX X	ABIETELLA, <i>S.V.</i> . . IX X to IV	VI VII VII
SEMIRUFA, <i>Hw.</i>		VI VII	ROBORELLA, <i>S.V.</i> . . V	VII VIII
PINGUIS, <i>Hw.</i> V VI		VII VIII	PEMPELIA, <i>Z.</i>	
CINEROSSELLA, <i>Z.</i> . . V ?		VI VII	PALUMBELLA, <i>S.V.</i> IX X to IV	VI VI VIII
CRYPTOBLABES, <i>Z.</i>			RHODOPHÆA, <i>G.</i>	
BISTRIGELLA, <i>Hw.</i> . . IX X		VI VII	FORMOSELLA, <i>Hw.</i> . . VII to IX	VI VII
PLODIA, <i>G.</i>			CONSOCIELLA, <i>H.</i> . . V VI	VII VIII
INTERPUNCTELLA, <i>H.</i> IX X		VI VII	ADVENELLA, <i>Zk.</i> . . V VI	VII VIII
ROXBURGHII, <i>Greg.</i>			MARMOREA, <i>Hw.</i> . . V	VI VII
NEPHOPTERYX, <i>Z.</i>			SUAVELLA, <i>Zk.</i> V VI	VII
ANGUSTELLA, <i>H.</i> . . VIII IX		V VI & IX X	TUMIDELLA, <i>Zk.</i> V VI	VI to VIII
GENISTELLA, <i>D.</i> . . . IX to VII		VII	RUBROTIBIELLA, <i>F.R.</i> VI	VII
GYMNANCYCLA, <i>Z.</i>			ONCOCERA, <i>Ss.</i>	
CANELLA, <i>S.V.</i> VIII IX		VI VII	AHENELLA, <i>S.V.</i> . . V VI	V to VIII
PHYCIS, <i>F.</i>			MELIA, <i>Ss.</i>	
BETULELLA, <i>Ga.</i> V		VI VII	SOCIELLA, <i>L.</i> VIII	VII VIII
CARBONARELLA, <i>F.R.</i>		VI VII	ANELLA, <i>Zk.</i>	VII VIII
ADELPHELLA, <i>F.R.</i> VII to IX		VI	GALLERIA, <i>Lt.</i>	
ADORNATELLA, <i>D.</i> . . V VI		VI VII	CERELLA, <i>G.</i> V VI	VIII IX
SUBORNATELLA, <i>Z.</i> V VI		VI VII	MELIPHORA, <i>G.</i>	
ORDUCTELLA, <i>F.R.</i> V VI		VII VIII	ALVEARIELLA, <i>G.</i> . . IX & X to V	VII and s. x

TORTRICES

CYMBIDÆ			GNOMANA, <i>L.</i> V	VII
HALIAS, <i>Tr.</i>			DICHELIA, <i>G.</i>	
PRASINANA, <i>L.</i> . . . VII VIII		V VI VII	GROTIANA, <i>F.</i> V ?	VI to VIII
QUERCANA, <i>S.V.</i> . . V		VII	AMPHISA, <i>C.</i>	
CLORANA, <i>L.</i> VIII		V	GERNINGANA, <i>S.V.</i> V	V VII VIII
TORTRICIDÆ			PRODROMANA, <i>H.</i> . . VII VIII	III to V
SAROTHRIPA, <i>C.</i>			CONNECTRA, <i>G.</i>	
REVAYANA, <i>S.V.</i> . . V VI		VII IX IV	PILLERIANA, <i>S.V.</i> . . VI	VII
TORTRIX, <i>L.</i>			LEPTOGRAMMA, <i>C.</i>	
PODANA, <i>S.</i> V VI		VI VII	LITERANA, <i>L.</i> VI	IV VIII IX
PICEANA, <i>L.</i> V		VII	NIVEANA, <i>F.</i> VI	IV
CRATÆGANA, <i>H.</i> . . V		VII	SCABRANA, <i>F.</i> VIII IX	IX XI
XYLOSTRANA, <i>H.</i> . . V		VI	BOSCANA, <i>F.</i> V VI	VII
SORBIANA, <i>H.</i> V		VI VII	PERONEA, <i>C.</i>	
ROSANA, <i>L.</i> V VI		VI to VIII	SPONSANA, <i>F.</i> VII	VIII IX
DUMETANA, <i>Tr.</i> . . . V		VII	AUTUMNANA, <i>H.</i> . . VI	VII to XI
DIVERSANA, <i>H.</i> . . . V		VII	LIPSIANA, <i>S.V.</i> . . . VI	VII & IX
CINNAMOMEANA, <i>Tr.</i> V		VI VII	MIXTANA, <i>H.</i> VII	IV V VII
HEPARANA, <i>S.V.</i> . . V VI		VI VII	COMARIANA, <i>Z.</i> . . . V to VII	VII
RIBEANA, <i>H.</i> V VI		VI VII	SCHALLERIANA, <i>L.</i> . . VI	VIII
CORYLANA, <i>H.</i> V VI		VII VIII	COMPARANA, <i>H.</i> . . . VI	VIII
UNIFASCIANA, <i>D.</i> . . V		VI VII	CALEDONIANA, <i>Ben.</i> VI	VII VIII
SEMIALBANA, <i>G.</i> . . . V		VI VII	PERMUTANA, <i>D.</i> . . . V ?	VI
COSTANA, <i>S.V.</i> . . . V VI		VI to VIII	VARIEGANA, <i>S.V.</i> . . VI	VIII IX
VIBURNANA, <i>S.V.</i> . . V VI IX		VI to VIII	CRISTANA, <i>S.V.</i> . . . VI to IX	VIII IX to XI
ICTERANA, <i>Fro.</i> . . . V VI		VII VIII	HASTIANA, <i>L.</i> VI VII	VIII
VRIDANA, <i>L.</i> V VI		VI VII	MACCANA, <i>Tr.</i> . . . V VI	VIII IX
MINISTRANA, <i>L.</i> . . IX X		V VI	UMBRANA, <i>H.</i> IX	VIII IX
FOSTERANA, <i>F.</i> . . . IV VI		VII VIII	FERRUGANA, <i>S.V.</i> . . V VI	VIII IX
BEANDERIANA, <i>L.</i> . . V		VI VII	TRISTANA, <i>H.</i> VI to VIII IX	IX

	LARVÆ	IMAGOS	SIDERIA, G.	LARVÆ	IMAGOS
ASPERSANA, <i>H.</i>	V VI VII	VII VIII	ACHATANA, <i>S.V.</i> . . .	VII	
SHEPHERDANA, <i>Ss.</i> . .	V VI	VII VIII	SERICORIS, <i>Tr.</i>		
TERAS, <i>Tr.</i>			LATIFASCIANA, <i>Hw.</i> .	VI	
CAUDANA, <i>F.</i>	V VI	VII VIII	EUPHORBIANA, <i>Z.</i> . .	VI VII VIII	V VIII
CONTAMINANA, <i>H.</i> . .		VII VIII	BIFASCIANA, <i>Hw.</i> . .		VII VIII
DICTYOPTERYX, <i>Ss.</i>			LITTORANA, <i>C.</i> . . .	V VI	VI VII
LORQUINIANA, <i>D.</i> . .	V & VII	VI & VIII	ABSCISANA, <i>G.</i>		VI VIII
LÆFLINGIANA, <i>L.</i> . .		VI VII	CESPITANA, <i>H.</i>		VI VII
HOLMIANA, <i>L.</i> . . .	V	VI VII	CONCHANA, <i>H.</i> . . .	IV ?	VI VII
BERGMANNIANA, <i>L.</i> .	V VI	VI	LACUNANA, <i>S.V.</i> . .	V VI	VII VIII
FORSKALREANA, <i>L.</i> .	V VI	VI VII	URTICANA, <i>H.</i>	V VI	VII VIII
ARGYROTOXA, <i>Ss.</i>			DALEANA, <i>Db.</i>		VI
CONWAYANA, <i>F.</i> . . .	VIII X	V VII	MICANA, <i>H.</i>		VI VII
PTYCHOLOMA, <i>Ss.</i>			IRRIGUANA, <i>H.</i> . . .		VII
LECHEANA, <i>L.</i>	IV V VI VII	V VI VII	DOUBLEDAYANA, <i>Ba.</i>		VII
PENTHINDÆ			MIXODIA, <i>G.</i>		
DITULA, <i>Ss.</i>			SCHULZIANA, <i>F.</i> . . .	V ?	VI to VIII
HARTMANNIANA, <i>L.</i> .	V	VII	PALUSTRANA, <i>Lnig.</i>		VI
SEMIFASCIANA, <i>Hw.</i> .	V	VI VII	RATZBURGIANA, <i>Sax.</i> .	V VI	VI to VIII
PENTHINA, <i>Tr.</i>			RUBIGINOSANA, <i>H.S.</i>		VI
PICANA, <i>Fro.</i>	V	VI VII	CONSEQUANA, <i>H.S.</i> .	VII IX	VI
SORORCULANA, <i>Ztt.</i> .	V	VII	ROXANA, <i>Ss.</i>		
CAPREANA, <i>H.</i> . . .	IV V	VI	ARCUANA, <i>L.</i>		V VI
PRÆLONGANA, <i>G.</i> . .	VIII IX	VI VII	EUCHROMIA, <i>Ss.</i>		
PRUNIANA, <i>H.</i>	V	VI	MYGINDANA, <i>S.V.</i> . .	IV	VII
OCHROLEUCANA, <i>H.</i> .	V	VI VII	RUFANA, <i>S.</i>	IV	VI VII
CYNOSBANA, <i>L.</i> . . .	V	VI	PURPURANA, <i>Hw.</i> . .		
DIMIDIANA, <i>So.</i> . . .	IX	VI	ARBUTANA, <i>L.</i> . . .	IV	VI
SAUCIANA, <i>H.</i>	VIII ?	VI	ORTHOTÆNIA, <i>Ss.</i>		
GREVILLANA, <i>C.</i> . . .		VI	ANTIQUANA, <i>H.</i> . . .	I II	VI VII
STANTONIANA, <i>Ba.</i>		VI	STRIANA, <i>S.V.</i> . . .		VI VII
GENTIANANA, <i>H.</i> . .	XI to V	VI	ERICETANA, <i>Ben.</i> . .		VI
SELLANA, <i>H.</i>	VI	VII	SCIAPHILIDÆ		
MARGINANA, <i>Hw.</i> . .	VI VII IX X	V to VIII	ERIOPELA, <i>G.</i>		
FULIGANA, <i>H.</i>	V	VI VII	FRACTIFASCIANA, <i>Hw.</i>	VIII	V VII
ANTITHESIA, <i>G.</i>			QUADRANA, <i>H.</i> . . .	V ?	V VII
SALICANA, <i>G.</i>	V	VI VII	PHTHEOCHROA, <i>Ss.</i>		
SPILONOTIDÆ			RUGOSANA, <i>H.</i> . . .	VI VII	VI
SPILONOTA, <i>C.</i>			CNEPHASIA, <i>C.</i>		
LARICIANA, <i>Z.</i>	V	VI VII	CINCTANA, <i>S.V.</i> . . .	V ?	VII
OCCELLANA, <i>S.V.</i> . .		VI VII	POLITANA, <i>Hw.</i> . . .	V	V to VII
PAUPERANA, <i>Frr.</i> . .		III IV	MUSCULANA, <i>H.</i> . . .	IX X	IV V VI
ACERIANA, <i>Mann.</i> . .		VIII	SCIAPHILA, <i>Tr.</i>		
DEALBANA, <i>Frol.</i> . .		VIII	NUBILANA, <i>H.</i> . . .		VI VII
NEGLECTANA, <i>D.</i> . .		VI VII	PERTERANA, <i>G.</i> . . .		VI VII
SIMPLANA, <i>F.R.</i> . . .	V	V VI	SUBJECTANA, <i>G.</i> . . .	IV V VI	VI VII
INCARNATANA, <i>H.</i> . .		VI VII	VIRGAUREANA, <i>Tr.</i> .	IV V VI	VI VII
SUFFUSANA, <i>Kol.</i> . .		VI VII	CHRYSANTHEANA, <i>D.</i>	VI	VI
ROSÆCOLANA, <i>Db.</i> . .		VI VII VIII	WAHLBOMIANA, <i>L.</i> .	V ?	VII
ROBORANA, <i>S.V.</i> . .	IV V VI	VII	PASIVANA, <i>H.</i>		VII
PARDIA, <i>G.</i>			ABRASANA, <i>D.</i>		VI VII
TRIPUNCTANA, <i>S.V.</i> .	V VI	VI VII	HYBRIDANA, <i>H.</i> . . .		VI VII
SERICORIDÆ			OCTOMACULANA, <i>Hw.</i>		VI
ASPIS, <i>Tr.</i>			PENZIANA, <i>Thnb.</i> . .	VI	VII
UDMANNIANA, <i>L.</i> . .	VI	VI VII	COLQUHOUNANA, <i>Stn.</i>		VI VII

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
SPHALEROPTERA, G.					
ICTERICANA, <i>Hw.</i> .. v	VI VII		SEMIFUSCANA, <i>Hw.</i> VI	VII VIII	
CAPUA, <i>Sz.</i>			SORDIDANA, <i>H.</i> v	IX X	
FAVILLACEANA, <i>H.</i>	V VI		EPHIPPIPHORA, <i>G.</i>		
CLEPSIS, <i>G.</i>			BIMACULANA, <i>Don.</i> v	VII to IX	
RUSTICANA, <i>Tr.</i>	IV V VI		CIRSIANA, <i>Z.</i> X IV V	VII	
GRAPHOLITHIDÆ			PTUGIANA, <i>Hw.</i> ... IX III IV V	V VI	
BACTRA, <i>Sz.</i>			BRUNNICHIANA, <i>S.V.</i> III IV	VI to VIII	
LANCEOLANA, <i>H.</i> ... IV	V VI VII		TURBIDANA, <i>Tr.</i> IV V	VII	
FURFURANA, <i>Hw.</i> ... I	VI VII		FENEANA, <i>L.</i> X VI	VII	
PHOXOPTERYX, <i>G.</i>			NIGRICOSTANA, <i>Hw.</i> IX X III	VI VII	
SICULANA, <i>H.</i> X	V VI		SIGNATANA, <i>Dg.</i> ... v	VI VII	
UNGUICANA, <i>L.</i> IV	V VI		GRANDÆVANA, <i>Z. (f)</i> III IV V	VI VII	
UNCANA, <i>H.</i> IV	VI		TRIGEMINANA, <i>Sz.</i> ... VIII IX	VI VII	
BIARCUANA, <i>Sz.</i> VIII	VI VII		TETRAGONANA, <i>Sz.</i> ...	VII VIII	
INORMATANA, <i>H.S.</i> v	VI & VIII		COSTIPUNCTANA, <i>Hw.</i>		
PALUDANA, <i>Bz.</i>	VI & VIII		POPULANA, <i>F.</i> v	VII	
COMPTANA, <i>Fro.</i> ... X	IV V VIII		OBSCURANA, <i>Sz.</i> ? ..	VI VII	
MYRTILLANA, <i>Tr.</i> ... VII IX	V VI		GALLICOLANA, <i>Z.</i> ... I II	V VI	
LUNDANA, <i>F.</i> VIII to IV	V & VIII		OLINDIA, <i>G.</i>		
DERASANA, <i>H.</i> VIII IX	VI VII		ULMANA, <i>H.</i> v ?	VII VIII	
DIMINUTANA, <i>Hw.</i> VIII	V		SEMASIA, <i>G.</i>		
MITTERPACHERIANA, <i>S.V.</i> VIII X	VI VII		SPINIANA, <i>F.R.</i> v ?	VI VII	
UPUPANA, <i>Tr.</i> IX (?)	V VI		IANTHINANA, <i>D.</i> ... IX	VII	
LÆTANA, <i>F.</i> v	VI		RUFILLANA, <i>Z.</i> VIII IX	VI to VIII	
GRAPHOLITHA, <i>Tr.</i>			WÆBERANA, <i>S.V.</i> ... X to IV	VI	
RAMANA, <i>L.</i> IV	VII		COCCYX, <i>Tr.</i>		
NISANA, <i>Z.</i> III	VII VIII		COSMOPHORANA, <i>Tr.</i> I II	VI	
NIGROMACULANA, <i>Hw.</i> VIII IX	VI VII		STROBILANA, <i>L.</i> ... X to IV	IV V	
CAMPOLILIANA, <i>S.V.</i> VII IX X	V VI VII		SPLENDIDULANA, <i>G.</i>	IV V VI	
MINUTANA, <i>H.</i> v VI	VI VII		VERNANA, <i>Kngs.</i> ..	III	
TRIMACULANA, <i>Don.</i> v	VII VIII		RAVULANA, <i>H.S.</i> ..	VII	
PENKLERIANA, <i>S.V.</i> III	VI VII		ARGYRANA, <i>H.</i> X	V VI	
OBTUSANA, <i>Hw.</i> VIII	V VI		NEMORIVAGANA, <i>Tengs.</i> VIII ?	V VI	
NÆVANA, <i>H.</i> VI VII	VIII IX		PYGMÆANA, <i>H!</i> VII	III IV	
GEMINANA, <i>Sz.</i> v VI IX X	VI VII		HERCYNIANA, <i>Uslar</i> X IV V	V VI VIII	
PHLEODES, <i>G.</i>			DISTINCTANA, <i>Ben.</i>	V VI	
TETRAQUETRANA, <i>Hw.</i> IX	IV V VI		USTOMACULANA, <i>C.</i> IV V	VI VII	
IMMUNDANA, <i>F.R.</i> ... IV & VII	IV V & VIII		NANANA, <i>Tr.</i>	VII	
DEMARNIANA, <i>F.R.</i> IV	VI VII		VACCINIANA, <i>F.R.</i> ... VIII X	V VI	
CRENANA, <i>H.</i> VIII IX	IX IV		HEUSIMENE, <i>Sz.</i>		
HYPERMECIA, <i>G.</i>			FIMBRIANA, <i>Sz.</i> X	III IV	
CRUCIANA, <i>L.</i> IV V	VI VII		PAMPLUSIA, <i>G.</i>		
AUGUSTANA, <i>H.</i> VI	VIII		MERCURIANA, <i>H.</i> ... v VI & IX	VII	
BATODES, <i>G.</i>			RETINIA, <i>G.</i>		
ANGUSTIORANA, <i>Hw.</i> v	VII VIII		BUOLIANA, <i>S.V.</i> v	VI VII	
PÆDISCA, <i>Tr.</i>			PINICOLANA, <i>Dö.</i> ... v VI	VI to IX	
BILUNANA, <i>Hw.</i> IV	VII		TURIONANA, <i>L.</i> ... III IV	V VI	
OPPRESSANA, <i>Tr.</i> ... IX	VI		PINIVORANA, <i>Z.</i> IV	VII VIII	
CORTICANA, <i>S.V.</i> ... v VI	VII VIII		RESINANA, <i>L.</i> I II	VI	
PROFUNDANA, <i>S.V.</i> v VI	VIII		DUPLANA, <i>H.</i> VIII ?	VI	
OPHTHALMICANA, <i>H.</i> v	VIII IX		SYLVESTRANA, <i>C.</i> ... v	VI VII	
OCCULTANA, <i>Dg.</i> ... VI VII	VII IX		CARPOCAPSA, <i>Tr.</i>		
SOLANDRIANA, <i>L.</i> ... VI	VIII IX		SPLENDANA, <i>H.</i> IX	VIII	
			GROSSANA, <i>Hw.</i> IX	VI VII	

LARVÆ		IMAGOS		LARVÆ		IMAGOS	
POMONANA, <i>L.</i> VIII	VI	EXPALLIDANA, <i>Hw.</i>	VI VII	CITRANA, <i>H.</i> IX	VII	PUPILLANA, <i>L.</i> VI	VIII
OPADIA, <i>G.</i>		CONTERMINANA, <i>H.S.</i> VII	VI	TRYCHERIS, <i>G.</i>		MEDIANA, <i>S.V.</i> VII	VI VII
FUNEBRANA, <i>Tr.</i> VIII IX	VI	PYRALOIDÆ		SIMÆTHIS, <i>Lch.</i>		VIBRANA, <i>H.</i> V and VI	VI and VII
ENDOPISA, <i>G.</i>				CHOREUTES, <i>Tr.</i>		SCINTILULANA, <i>H.</i> . . . VI	VII VIII
NIGRICANA, <i>F.</i> VII	VI VII			XYLOPODA, <i>Lt.</i>		FABRICIANA, <i>L.</i> IV VI VIII	V IX
PISANA, <i>G.</i> VII VIII to X	VI			PARIANA, <i>L.</i> VIII	IX	CONCHYLIDÆ	
STIGMONOTA, <i>G.</i>				LOBESIA, <i>G.</i>		RELIQUANA, <i>H.</i>	V
DORSANA, <i>F.</i> VII	VI VII			SERVILLANA, <i>D.</i> X	V VI	EUPECILIA, <i>Ss.</i>	
LEGUMINANA, <i>Z.</i> VIII?	VI			NANA, <i>Hw.</i> III	VI	DUBITANA, <i>H.</i> V & IX	VII VIII
CONIFERANA, <i>Rtz.</i> IV	VI VII			ATRICAIPITANA, <i>Ss.</i> IX	VII	MACULOSANA, <i>Hw.</i> IX	V VI
LEPLASTRIANA, <i>C.</i> IV	VII			SODALIANA, <i>Hw.</i> . .	VI VII	HYBRIDELLANA, <i>H.</i> VIII	VI
COROLLANA, <i>H.</i> I II	VII			AMBIGUANA, <i>H.</i> V	VII	GEYERIANA, <i>H.S.</i> . .	VI
PERLEPIDANA, <i>Hw.</i> VII	V VI			MANNIANA, <i>F.R.</i> . .	V and VII	DEGREYANA, <i>Mc.</i> . . . VI?	VII VIII
INTERNANA, <i>G.</i>	VII			ANGUSTANA, <i>H.</i> V	V VI	CURVISTRIGANA, <i>Wlk.</i> VII	V & VII
COMPOSANA, <i>F.</i>	VI VIII			VECTISANA, <i>Wsd.</i> . . V & VII	V VI	UDANA, <i>G.</i> IV	V VI
WEIRANA, <i>Dg.</i> VIII IX	VI			NOTULANA, <i>Z.</i> IX	V VI	RUPICOLANA, <i>C.</i> IV	V VI VII
REDIMITANA, <i>G.</i> IX V	VII			FLAVICILIANA, <i>Db.</i>	VII	ROSEANA, <i>Hw.</i> X IV	VIII
TRAUNIANA, <i>S.V.</i> . .	VI			SUBROSEANA, <i>Hw.</i> . . . X	VI VII	IMPLICITANA, <i>H.s.</i> . . X	VI to VIII
REGIANA, <i>Z.</i> X to V	VII			CILIANA, <i>H.</i> VII VIII	V VI	ANTHEMIDANA, <i>C.</i> . . . VII X	VII VIII
GERMARANA, <i>H.</i> . . . IX	V VI			PALLIDANA, <i>Z.</i>	V VI VII	XANTHOSETIA, <i>Ss.</i>	
ROSETICOLANA, <i>Z.</i> IX	VII			ZOEGANA, <i>L.</i> IV	V VII VIII	HAMANA, <i>L.</i> V VI	VI VII
OROBANA, <i>Tr.</i> VIII X	VII VIII			CHROSIS, <i>G.</i>		TESSERANA, <i>S.V.</i> . . IX to IV	VII
DICRORAMPHA, <i>G.</i>				RUTILANA, <i>H.</i> VI	VII VIII	BIFASCIANA, <i>H.</i>	VI
POLITANA, <i>S.V.</i> X V VI	VII			ARGYROLEPIA, <i>Ss.</i>		BAUMANNIANA, <i>S.V.</i>	VI
ALPINANA, <i>Tr.</i> V VI	VII VIII			SUB-BAUMANNIANA, <i>Wlk.</i>	VII	ZEPHYRANA, <i>Tr.</i> . . V	VI VII
SEQUANA, <i>H.</i>	V			SCHREIBERSIANA, <i>Fro.</i> I II	VI		
PETIVERANA, <i>L.</i> . . . IV V	VI to VIII						
PLUMBANA, <i>S.</i> IX X	V VI						
SATURNANA, <i>G.</i>	VII VIII						
PLUMBAGANA, <i>Tr.</i> . . IX X	VI						
ACUMINATANA, <i>Z.</i> . . IV V	VI VIII IX						
HERBOSANA, <i>Ba.</i> . .	VI VII						
SENECTANA, <i>G.</i>	VI to VIII						
SIMPLICIANA, <i>Hw.</i> . . IV V	VI to VIII						
TANACETANA, <i>Stn.</i> I II	VII						
CONSORTANA, <i>Ss.</i> . . IV V VI	VII						
PYRODES, <i>G.</i>							
RHEDIANA, <i>L.</i> IX	V VI						
CATOPTRIA, <i>G.</i>							
ALBERSANA, <i>H.</i> X	V VI						
ULICETANA, <i>Hw.</i> . . VIII	V VII to IX						
NIMBANA, <i>Fisch.</i> . . IV	VI						
JULIANA, <i>C.</i> IX	VI VII						
MICROGRAMMANA, <i>G.</i> IX	VI VII						
HYPERICANA, <i>H.</i> . . V	VI VII						
PARVULANA, <i>Wlk.</i> . .	VII						
MARITIMANA, <i>Dale</i> V VI	VII						
CANA, <i>Hw.</i> VII VIII	VI VII VIII						
FULVANA, <i>Ss.</i> IX XI	VI VII						
HOHENWARTHIANA, <i>S.V.</i> VIII IX	VI to VIII						
SCOPOLIANA, <i>Hw.</i> . . IX X	VI VII VIII						
CÆCIMACULANA, <i>H.</i>	VII						
ÆMULANA, <i>Schl.</i> . . X	VII VIII						
ASPIDISCANA, <i>H.</i> . . VIII	V						

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
BADIANA, <i>H.</i> IX	VI VII		SMEATHMANIANA, <i>F.</i> x	VI VII	
CNICANA, <i>Db.</i> VII VIII	VI VII		STRAMINEANA, <i>Hw.</i> IX x	VI VII	
ÆNEANA, <i>H.</i> I	VI		ALTERNANA, <i>Ss.</i> . . IX x	VI VII	
MUSSEHLIANA, <i>Tr.</i> VIII	VI		INOPIANA, <i>Hw.</i> . . . IX	VII	
MARITIMANA, <i>G.</i> . . VIII x	V VI		APHELIDÆ		
CONCHYLIS, <i>Tr.</i>			APHELIA, <i>C.</i>		
DIPOLTANA, <i>H.</i> I II	VII VIII		OSSEANA, <i>S.</i>	VII VIII	
FRANCILLONANA, <i>F.</i> x to v	V VI		TORTRICODES, <i>G.</i>		
DILUCIDANA, <i>Ss.</i> . . IX x	VI		HYEMANA, <i>H.</i> VII?	II III V	

TINEÆ

EPIGAPHIIDÆ			VACULELLA, <i>Fisch.</i>	VII	
LEMNATOPHILA, <i>Tr.</i>			SCARDIA, <i>Tr.</i>		
PHRYGANELLA, <i>H.</i> . . . VI	IX XI		CHORARGELLA, <i>S. V.</i> v	VII VIII	
SALICELLA, <i>H.</i> x	IV		EMORTUELLA, <i>Z.</i> . . v	V VIII	
EXAPATE, <i>Z.</i>			CARPINETELLA, <i>G.</i> . . IV	VI	
GELATELLA, <i>L.</i> VII	x XI		PICARELLA, <i>L.</i> . . .	VII	
DIURNEA, <i>Hw.</i>			ARCUATELLA, <i>Stn.</i> . . v	VI	
FAGELLA, <i>S. V.</i> IX	III IV		GRANELLA, <i>L.</i> v	VI VII	
EPIGRAPHIA, <i>C.</i>			CLOACELLA, <i>Hw.</i> . . IV v	VI to VIII	
AVELLANELLA, <i>H.</i> . .	IV		COCHYLIDELLA, <i>Stn.</i>	VI	
STEINKELLNERIELLA, <i>S. V.</i> VIII	IV		ARCELLA, <i>F.</i> v	VII VIII	
PSYCHIDÆ	[IX]		TINEA, <i>Stn.</i>		
TALÆPORIA, <i>Z.</i>			IMELLA, <i>H.</i> XI	V VII x	
PUBICORNELLA, <i>Hw.</i> v	VI		FERRUGINELLA, <i>H.</i>	VII & x	
PSEUDO-BOMBYCELLA, <i>O.</i> x IV	VI		RUSTICELLA, <i>H.</i> I II	VII VIII	
PSYCHE, <i>Br.</i>			MONACHELLA, <i>H.</i> . .	V VIII	
VILLOSELLA, <i>O.</i> v	V VI		FULVIMITRELLA, <i>So.</i> v	VI	
OPACELLA, <i>H. S.</i> . . . IV	V VI		TAPETZELLA, <i>L.</i> IV VI	VI VII	
CALVELLA, <i>O.</i>	V VI		RURICOLELLA, <i>Stn.</i>	V & VIII	
SALICOLELLA, <i>Br.</i> . .	VI		ALBIPUNCTELLA, <i>Hw.</i> IV v	VI VII	
BETULINELLA, <i>Z.</i> . .	VI VII		CONFUSELLA, <i>H. S.</i>	VII VIII	
PULLELLA, <i>Br.</i> . . .	V VI		CAPRIMULGELLA, <i>H. S.</i> v	VII	
INTERMEDIELLA, <i>Br.</i>	VI		MISELLA, <i>Z.</i> IX x	VI VIII	
ROBORICOLELLA, <i>Br.</i> v	VI		PELLIONELLA, <i>L.</i> . . . IV v VI	VI VII x	
CRASSIORELLA, <i>Br.</i>	VI		DUBIELLA, <i>Gregs.</i> . . a form of Pellionella?		
RETICELLA, <i>N.</i> . . .	v		FUSCIPUNCTELLA, <i>Hw.</i> VII VIII	VI VII IX	
RADIELLA, <i>C.</i>	VII		FLAVESCENTELLA, <i>Hw.</i> formerly taken near London		
SOLENOBIA, <i>Z.</i>			PALLESCEMENTELLA, <i>Stn.</i> v VI	VII x	
TRIQUETRELLA, <i>H.</i> III IV	IV		GANOMELLA, <i>Tr.</i> . . x v	VI VII	
DOUGLASII, <i>Stn.</i> . . .			MERDELLA, <i>Z.</i> x XI	VI VII	
INCONSPICUELLA, <i>Stn.</i> III VI x	IV v		BISELIELLA, <i>Hml.</i> . . x VI	VI VII	
CONSPURCATELLA, <i>Z.</i>			SIMPLICIELLA, <i>H. S.</i>	VII	
PSYCHOIDES, <i>Br.</i>			NIGRIPUNCTELLA, <i>Hw.</i> v	VIII	
VERHUELLELLA, <i>Hey.</i> IV v VI	VI VII		SEMIFULVELLA, <i>Hw.</i> x v	V VI VII	
TINEIDÆ			BISTRIGELLA, <i>Hw.</i> IX	v	
DIPLODOMA, <i>Z.</i>			SUBAMMANELLA, <i>Stn.</i>	VII	
MARGINEPUNCTELLA, <i>Ss.</i> IV v	VI		PEROCHRACELLA, <i>Db.</i> IV v	VI VII	
XYSMATODOMA, <i>Z.</i>			LAMPRONIA, <i>Z.</i>		
MELANELLA, <i>Hw.</i> . . . IV v	VI		QUADRIPUNCTELLA, <i>F.</i> v	VI	
ARGENTIMACUELLA, <i>Stn.</i> VI	VII		LUZELLA, <i>H.</i> v	V VI VII	
PHYGAS, <i>Tr.</i>			PRÆLATELLA, <i>S. V.</i> IX v	VI	
BIRDELLA, <i>C.</i> II v	VII VIII		RUBIELLA, <i>Bjer.</i> . . IV v	VI	
BISONTELLA, <i>Lnig.</i>	VII				

LARVÆ | IMAGOS		LARVÆ | IMAGOS	
INCURVARIA, <i>Hw.</i>		EVONYMELLA, <i>L.</i> ... V	VII IX
MASCUELLA, <i>S.F.</i>	V	ANESYCHIA, <i>Ss.</i>	
ZINCKENELLA, <i>Z.</i> ... VI X	IV	FUNERELLA, <i>F.</i> ... VIII	VI
TENUICORNELLA, <i>Stn.</i>	VI	DECEMGUTTELLA, <i>H.</i> IX X	V VI
CANARIELLA, <i>Stn.</i> ... V	VI	CHALYBE, <i>D.</i>	
OEHLMANNIELLA, <i>H.</i> X II	VI	PYRAUSTELLA, <i>Pallas</i> VII	V
CAPITELLA, <i>L.</i> ... IV	V	PEPILLA, <i>G.</i>	
MICROPTERYX, <i>Z.</i>		CURTISELLA, <i>Don.</i> ... V	VI VII
CALTHELLA, <i>L.</i> ...	V VI	PLUTELLIDÆ	
ARUNCCELLA, <i>S.</i> ...	VI	EIDOPHASIA, <i>Ss.</i>	
SEPPELLA, <i>F.</i> ...	VI	MESSINGIELLA, <i>F.R.</i> IV V	VI
MANSUETELLA, <i>Z.</i> ...	V VI	PLUTELLA, <i>Sk.</i>	
ALLIONELLA, <i>F.</i> ... IV	V VI	XYLOSTELLA, <i>L.</i> ... V VI IX	IV V VII
THUNBERGELLA, <i>F.</i>	V VI	PORRECTELLA, <i>L.</i> ... IV V VI	V VI VIII
PURPURELLA, <i>Ss.</i> ... VIII?	IV V	ANNULATELLA, <i>C.</i> ... VI	VI to VIII
SALOPIELLA, <i>Stn.</i> ... VIII?	IV V	DALELLA, <i>Stn.</i> ... VI	IV VII VIII
SEMPURPURELLA, <i>Ss.</i> VIII?	IV	HYPOLEPIA, <i>G.</i>	
UNIMACULELLA, <i>Zth.</i> VIII?	IV	SEQUELLA, <i>L.</i> ... V	VII VIII
SPARMANELLA, <i>Bosc.</i> VIII?	IV V	VITTELLA, <i>L.</i> ... VI	VII VIII
SUBPURPURELLA, <i>Hw.</i> VIII?	IV V VI	RADIATELLA, <i>Don.</i> V	VIII IV
FASTUOSELLA, <i>Z.</i> ... IV V	IV V	COSTELLA, <i>F.</i> ... V	VIII
NEMOPHORA, <i>H.</i>		YPSOLOPHA, <i>F.</i>	
SWAMMERDAMELLA, <i>L.</i> VIII?	V VI	SVILVELLA, <i>L.</i> ... VI	VIII IX
SCHWARZIELLA, <i>Z.</i> ...	V VI	ALPELLA, <i>S.F.</i> ... VI	VIII
PILELLA, <i>S.V.</i> ...	V VI	LUCELLA, <i>F.</i> ... VI	VII VIII
METAXELLA, <i>H.</i> ...	VI VII	HORRIDELLA, <i>Tr.</i> ... VI	VII
ADELA, <i>Lt.</i>		ASPERELLA, <i>L.</i> ... V	VII
FIBULELLA, <i>S.V.</i> ... VIII XI	V VI	HARPIPTERYX, <i>Tr.</i>	
RUFIMITRELLA, <i>S.</i> ... IX	V VI	SCABRELLA, <i>L.</i> ... V	VIII IX
SULZELLA, <i>S.V.</i> ...	VI	NEMORELLA, <i>L.</i> ... VI	VII VIII
DEGEERELLA, <i>L.</i> ... X III	VI	HARPELLA, <i>S.V.</i> ... IV V VI	VII
VIRIDELLA, <i>L.</i> ... IV?	VI	PTEROXIA, <i>G.</i>	
CUPRELLA, <i>F.</i> ...	IV	CAUDELLA, <i>L.</i> ... VI	VIII IX IV
NEMATOIS, <i>Z.</i>		GELECHIDÆ	
SCABIOSELLUS, <i>S.</i> ... VII to IV	VI	ORTHOTÆLIA, <i>Ss.</i>	
CUPRIACELLA, <i>H.</i> ... VII to IV	VI	SPARGANIELLA, <i>Thnb.</i> VI	VII
SCHIFFERMILLERELLA, <i>S.V.</i> V?	VI VII	ENICOSTOMA, <i>Ss.</i>	
MININELLA, <i>Z.</i> ... V?	VI VII	LOBELLA, <i>S.V.</i> ... VIII IX	VI
YPONOMEUTIDÆ		PHIBALOCERA, <i>Ss.</i>	
SWAMMERDAMIA, <i>Stn.</i>		QUERCELLA, <i>F.</i> ... V VI	VII VIII
COMPTELLA, <i>H.</i> ... VI IX	V to VIII	EXÆRETIA, <i>Stn.</i>	
CÆSIELLA, <i>H.</i> ... IX	V VII	ALLISELLA, <i>Stn.</i> ... V	VII
GRISEOCAPITELLA, <i>Stn.</i> IX	V VI	DEPRESSARIA, <i>Hw.</i>	
LUTARELLA, <i>Hw.</i> ... IX	VI VII	COSTOSELLA, <i>Hw.</i> ... V VI VII	VII VIII
PYRELLA, <i>Vill.</i> ... VII IX X	IV V VIII	LITURELLA, <i>S.V.</i> ... VI	VII VIII
NANIVORA, <i>Stn.</i>		PALLORELLA, <i>Z.</i> ... V to VIII	VIII III
SCYTHROPIA, <i>Stn.</i>		UMBELLELLA, <i>Ss.</i> ... VI VII	VIII IX
CRATÆGELLA, <i>L.</i> ... VI	VII	ASSIMILELLA, <i>Tr.</i> ... III to VI	VI to VIII
YPONOMEUTA, <i>Lt.</i> [x		NANATELLA, <i>Stn.</i> ... V	VII
VIGINIPUNCTELLA, <i>Rts.</i> VI VII IX	IV V VIII	ATOMELLA, <i>S.V.</i> ... V	VII
PLUMBELLA, <i>S.V.</i> ... V VI	VII VIII	ARENELLA, <i>S.V.</i> ... V VI	VII VIII IV
IRRORELLA, <i>H.</i> ... VI	VII	PROPINQUELLA, <i>Tr.</i> V	VII III
PADELLA, <i>L.</i> ... V VI	VII VIII	SUBPROPINQUELLA, <i>Stn.</i> VI	VII VIII III
COGNATELLA, <i>H.</i> ... V	VII	ALSTREMERIELLA, <i>L.</i> V VI	VII VIII IV

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
CINIFLONELLA, <i>L.</i> ...		III VIII	ALACELLA, <i>D.</i>	VI	VII
VACCINELLA, <i>H.</i> ...VI		VII VIII III	LONGICORNIS, <i>C.</i>	VII ?	V VI
CAPROLELLA, <i>Z.</i> ...VI		IV VIII	DIFFINELLA, <i>Hw.</i> ...IV		VI
HYPERICELLA, <i>H.</i> ...V VI		VII X	TERRELLA, <i>S.V.</i>		VI VII
CONTERMINELLA, <i>Z.</i> VI VII		VII VIII IV	DESERTELLA, <i>Ed.</i> ..		V VII VIII
ANGELICELLA, <i>H.</i> ...VI		VII IX	EXPOLITELLA, <i>Dg.</i>		VI VII
CARDUELLA, <i>H.</i>....V		VII	ACUMINATELLA, <i>St.</i> VII IX		VI to VIII
OCELLELLA, <i>F.</i>....V VII		VII VIII X	ARTEMISIELLA, <i>Tr.</i> VI		VI to VIII
YEATESIELLA, <i>F.</i> ...VI		VIII IX	VISCARIELLA, <i>Lo.</i> ...V		VI
RHODOCHRELLA, <i>H.S.</i>			ALBIPALPELLA, <i>H.S.</i> VI		VII
(var. of „ Subpropinquella)	III		ARUNDINETELLA, <i>Z.</i> III IV		VI VII
APFLANELLA, <i>F.</i>....VI		VII IV	SENECTELLA, <i>Z.</i>		VII VIII
CILIELLA, <i>Stn.</i>....VII		VIII III	MUNDELLA, <i>Dg.</i>		V VIII
GRANULOSELLA, <i>Stn.</i> VI		IX	SIMILIS, <i>Dg.</i>		VII VIII
ROTUNDELLA, <i>Dg.</i> ...V		VIII IX	AFFINELLA, <i>Hw.</i> ...IV V VI		VI VII
DEPRESSELLE, <i>H.</i> ...VI		VIII	BORELLA, <i>Dg.</i>		VI VII
PIMPINELLA, <i>Z.</i>....VI		VII VIII	GALBANELLA, <i>Fisch.</i>		VII
BIPUNCTOSA, <i>C.</i> probably a var. of <i>Liturella</i>	VII		BASALTINELLA, <i>Z.</i> ...V ?		VI VII
ALBIPUNCTELLA, <i>H.</i> VI		VIII III	DOMESTICELLA, <i>Hw.</i> III IV		VI VII
CNICELLA, <i>Tr.</i>....V VI		VI VII	RHOMBELLA, <i>H.</i>....VI		VII VIII
EMERITELLA, <i>Hey.</i> VII		VIII	PROXIMELLA, <i>H.</i> ...VIII		V VI
PULCHERRIMELLA, <i>Stn.</i> VI VII		VII VIII	NOTATELLA, <i>H.</i>....IX X		V VI
DOUGLASIELLA, <i>Stn.</i> V		VII VIII	LYELLELLA, <i>C.</i>		VIII IX X
WEIRRELLA, <i>Stn.</i>....V VI		VII VIII	VULGELLA, <i>H.</i>....IV V		VI VII
CHEROPHYLLIVORELLA, <i>Db.</i> V VII	VIII IV		LUCULELLA, <i>H.</i>....II III		V VI
ULTIMELLA, <i>Stn.</i> ...VI		VII VIII	SCRIPTELLA, <i>H.</i>....VIII		V VI
NERVOSELLA, <i>Hw.</i> VI VII		VIII IX	FUGITIVELLA, <i>Z.</i> ...V		VI VII
BADIELLA, <i>H.</i>		VIII	ÆTHIOPELLA, <i>Wsd.</i> VIII ?		V VI
DISCIPUNCTELLA, <i>H.S.</i>		VIII IX	SOLUTELLA, <i>Fisch.</i> ..		V
HERACLELLA, <i>De Geer</i> VI		VIII III	DISTINCTELLA, <i>Z.</i> ..		VI VII
OLERELLA, <i>Z.</i>....VI VII		VIII IX X	CELERELLA, <i>Dg.</i> ...		IX
PSORICOPTERA, <i>Stn.</i>			COSTELLA, <i>Ss.</i>....VII VIII		VIII IX
GIBBOSELLA, <i>Z.</i>....VI		VII	MACULELLA, <i>Hw.</i> ...VI		VII
GELECHIA, <i>Stn.</i>			TRICOLEORELLA, <i>Hw.</i> IV		VI
CINERELLA, <i>L.</i>		VI VII	FRATERNELLA, <i>Dg.</i> V		VI VII
RUFESCENTELLA, <i>Hw.</i> V VI		VII VIII	MUSCOSELLA, <i>Z.</i>....V		VI VII
INORNATELLA, <i>Dg.</i>		VI	MACULIFERELLA, <i>Mann</i> V		VII
GERRONELLA, <i>Z.</i> ...		VII	VICINELLA, <i>Dg.</i> ...V		VIII IX
VILELLA, <i>Z.</i>		VII VIII	LEUCOMELANELLA, <i>Z.</i> V		VII
HIPPOPHAELLA, <i>Sk.</i> VII		VIII IX	JUNCTELLA, <i>Dg.</i> ...		IV VIII IX
MALVELLA, <i>H.</i>....IX X		VI VII	HUBNERELLA, <i>Hw.</i> VI ?		VIII IX
POPULELLA, <i>L.</i>....V		VI VII	MARMORELLA, <i>Hw.</i> V		VI VIII
NIGRA, <i>Hw.</i>....V VI		VI VII	OBSOLETELLA, <i>Fisch.</i> VII X		VI
TEMERELLA, <i>L.</i>....VI		VII	INSTABILELLA, <i>Dg.</i> IV V		VII VIII
LENTIGINOSELLA, <i>Z.</i> V VI		VI VII	OCELLATELLA, <i>Stn.</i> VI VI		VII VIII
VELOCELLA, <i>Fisch.</i> IV		IV V VIII	LITTORELLA, <i>Dg.</i> ..		V
FUMATELLA, <i>Dg.</i> ...		VI VIII	ÆTRIPLICELLA, <i>Fisch.</i> V VII		VII VIII
ERICETELLA, <i>H.</i> ...IX to III		IV VIII	SEQUACELLA, <i>Hw.</i> ...V		VI VII
MULINELLA, <i>Ti.</i> ...V		VI VII	ALIELLA, <i>F.</i>....IX		V VI
DIVISELLA, <i>Dg.</i>		VI	LEUCATELLA, <i>L.</i> ...V VI		VI VII
PALUSTRELLA, <i>Dg.</i>		VII	ALBICAPITELLA, <i>Z.</i> VI		VII
SORORCULELLA, <i>H.</i> V		VI VII	NANELLA, <i>H.</i>....V		VII
CUNNEATELLA, <i>Z.</i> ...VII		IX	MOUFFETELLA, <i>S.V.</i> IV V		VI
PELIELLA, <i>Z.</i>		VI VII	DODECELLELLA, <i>L.</i>....V		VII

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
TRIPARELLA, <i>Z.</i>	VII IX	V VI	USTULELLA, <i>F.</i>	VIII IX to IV	V
TENEARELLA, <i>H.</i>	IV	VI VII	APLOTA, <i>Ss.</i>		
LIGULELLA, <i>Z.</i>	V	VI VII	PALPELLA, <i>Hw.</i>	V	VIII
VORTICELLA, <i>Z.</i>	VI	VI VII	NOTHRIS, <i>Stn.</i>		
TÆNIOLELLA, <i>Tr.</i>	VI	VII	VERBASCELLA, <i>S.V.</i> v		VII
SIRCOMELLA, <i>Stn.</i>	VI?	VI VII	DURDIAMELLA, <i>Stn.</i> VI		VII
IMMACULATELLA, <i>Dg.</i>		VIII	SOPHRONIA, <i>Stn.</i>		
NIGRITELLA, <i>Z.</i>		VI	PARENTHESSELLA, <i>L.</i>		VI VII
CORONILLELLA, <i>Ti.</i> v		VI VII	HUMERELLA, <i>H.</i>	V	VI
ANTHYLLIDELLA, <i>H.</i> IV		VI VIII	PLEUROTO, <i>Stn.</i>		
ATRELLA, <i>Hw.</i>	V VI	VII	BICOSTELLA, <i>L.</i>	X to V	VI VII
BIFRACTELLA, <i>Mann</i> x III		VI VII	HARPELLA, <i>Schlg.</i>		
OBLITELLA, <i>Db.</i>		VI	GEOFFROYELLA, <i>L.</i>		V VI
LUCIDELLA, <i>Ss.</i>		VII	BRACTEELLA, <i>L.</i>	II IV	VI
LUTULENTELLA, <i>Z.</i>		VII	HYPERCALLIA, <i>Ss.</i>		
GRACIELLA, <i>Stn.</i>		V	CHRISTIERNINELLA, <i>L.</i> v		VI VII
CONFINIS, <i>Stn.</i>		VI	DASYCERA, <i>Stn.</i>		
STRELITZIELLA, <i>H.S.</i>		VI	SULPHURELLA, <i>F.</i>	IV	IV to VII
CEREALIELLA, <i>Ol.</i>	III	V VI	OLIVIERELLA, <i>F.</i>	?	VI VII
GEMMELLA, <i>L.</i>	?	VII VIII	ECOPHORA, <i>Stn.</i>		
NÆVIFERELLA, <i>Z.</i>	X	VI VIII	MINUTELLA, <i>L.</i>	III	VI
HERMANNELLA, <i>F.</i> VI X		V VIII	FLAVIMACULELLA, <i>Stn.</i> IX		VI to VIII
PICTELLA, <i>Z.</i>	V	V VIII	TRISIGNELLA, <i>Z.</i>		V VI VII
BRIZELLA, <i>Ti.</i>	X	V VIII	STIPELLA, <i>Clk.</i>	IX	VI VII
SUBDECURTELLA, <i>Stn.</i> VI		VI	AUGUSTELLA, <i>H.</i>	?	VI
ERICINELLA, <i>Z.</i>	VI	VII VIII	ALBIMACULELLA, <i>Hw.</i> (var. of <i>Augustella</i>)		
PAUPELLA, <i>Z.</i>	VII VIII	VIII IX	WOODIELLA, <i>C.</i>		VI
INOPELLA, <i>Z.</i>	VII	VIII	GRANDELLA, <i>Deiv.</i>		V VI
SUBOCCELLELLA, <i>Ss.</i> X		VI VII	FORMOSELLA, <i>SV.</i>		VII
INTAMINATELLA, <i>Stn.</i> VIII IX		V VI	LUNARELLA, <i>Hw.</i>		VII VIII
OSSELLA, <i>Stn.</i>		VII	LAMBDELLA, <i>Don.</i>		VI VII
TARQUINIPELLA, <i>Stn.</i>		VI	SUBAQUILELLA, <i>Ed.</i>		VI VIII
KNAGGSIELLA, <i>Stn.</i> VI		VII VIII	TINCTELLA, <i>Tr.</i>	?	V VI
UMBROSELLA, <i>Z.</i>		V VI VII	SUBOCHREELLA, <i>Db.</i>		VI VII
SANGIELLA, <i>Stn.</i>	V	VI VII	FUSCO-AURELLA, <i>Hw.</i> IV		VIII
PINGUINELLA, <i>Tr.</i>	V	VII	FLAVIFRONTPELLA, <i>H.</i> IX to IV		V VI
LATHYRELLA, <i>Stn.</i> IX		VI	FUSCESCENTELLA, <i>Hw.</i>		VII VIII
PARASIA, <i>D.</i>			PSEUDOSPRETPELLA, <i>Stn.</i> X IV		VII VIII
LAPPELLA, <i>L.</i>	IX X	VI VII	ECOGENIA, <i>G.</i>		
METZNERIELLA, <i>Dg.</i> X II		VI VIII	KINDERMANNIPELLA, <i>Z.</i>		VII VIII
CARLINELLA, <i>Dg.</i>	II	VI VII	ENDROSIS, <i>Stn.</i>		
NEUROPTERELLA, <i>Fisch.</i> X to VI		VII VIII	FENESTRELLA, <i>S.</i>	I to XII	I to XII
CLEODORA, <i>Stn.</i>			BUTALIS, <i>Tr.</i>		
CYTISELLA, <i>C.</i>		VII	GRANDIPENNELLA, <i>Hw.</i> IV		VI VII
STRATATELLA, <i>S.V.</i> VI		VIII	FUSCOÆNEELLA, <i>Hw.</i> IV		VI VII
CHELARIA, <i>Hw.</i>			SENESCENTELLA, <i>Stn.</i> v		VII
CONSCRIPTPELLA, <i>H.</i> VI?		VIII IX	FUSCOCUPRELLA, <i>Hw.</i>		VII
ANARSIA, <i>Z.</i>			CICADELLA, <i>Z.</i>		VII
SPARTIELLA, <i>Schlg.</i> v VI		VII VIII	VARIELLA, <i>Ss.</i>		VI
GENISTELLA, <i>Stn.</i>	V	VII	CHENOPODIELLA, <i>H.</i> IV VIII		VI IX
MACROCHILA, <i>Ss.</i>			TORQUATELLA, <i>Luig.</i> VIII IX		VI VII
FASCIELLA, <i>H.</i>	IX	V	INCONGRUELLA, <i>Stn.</i> IX		III IV
MARGINELLA, <i>F.</i>	V	VII	PANCALIA, <i>Stn.</i>		
JUNIPERELLA, <i>L.</i>	V	VII	LEWENHOCKELLA, <i>L.</i>		VI VII

LARVÆ		IMAGOS	LARVÆ		IMAGOS
LATREILLELLA, C...			PRÆCOCELLA, Z. ...		V
GLYPHIPTERYGIDÆ			AURULENTELLA, Z. IV VIII		VII VIII
ACROLEPIA, C.			CEDESTIS, Stn.		
PERLEPIDELLA, Stn.	VI		FARINATELLA, D. ... III IV & VI		VI VII
GRANITELLA, Tr. ... VI VII	VIII		GYSSSELINELLA, D. ... III		VI VII
AUTUMNITELLA, C. VII X	VIII IV		OCNEROSTOMA, Z.		
BETULELLA, C.	VIII X		PINARIELLA, Z. ... IV & VI		IV VI & VIII
MARCIDELLA, C. ...			ZELLERIA, Stn.		
ROSLERSTAMMIA, Str.			HEPARIELLA, M. ...		VIII IV
ERKLEBENELLA, F. IV & VII	V VI & VIII IX		INSIGNIPENNELLA, Stn.		VIII IV
PRONUBELLA, S. V.	V		FASCIAPENNELLA, Lo.		IX X
GLYPHIPTERYX, Ss.			SAXIFRAGÆ, C. ... V VI		VII
FUSCOVIRIDELLA, Hw.	IV V VI		GRACILLARIIDÆ		
THRASONELLA, S. ... V ?	VI VII		GRACILLARIA, Z.		
CLADIELLA, Stn.	VI VII		ALCHIMIELLA, S. ... VII IX		V VI VIII
HAWORTHIELLA, Ss. IV VI	V VII		STIGMATELLA, F. ... VI VIII IX		VII & VIII IV
EQUITELLA, S. ... V VI	VI to VIII		STRAMINEELLA, Stn.		VIII IV
SCHENICOLELLA, Stn. IV V	V		HEMIDACTYLELLA, H. VII VIII		IX
OCULATELLA, Z.	VI		FALCONIPENNELLA, H. VIII		IX
FISCHERIELLA, Z. ... VII	V VIII		SEMIFASCIELLA, Hw. VII		IX
ÆCHMIA, Stn.			POPULETELLA, Z. ... VII		IX IV
DENTELLA, Stn. ... VII	V VI		ELONGELLA, L. ... V VII		V VI IX
PERITITIA, Stn.			TRINGIPENNELLA, Z. III IV & VI VII		V VIII
OBSCUREPUNCTELLA, Stn. VII	V		SYRINGELLA, F. ... VI IX		V VIII
TINAGMA, D.			OMISELLA, Dg. ... VII		V VIII
SERICIELLA, Hw. ... VIII	IV V		PHASIANIPENNELLA, H. VIII IX		IX IX
STANNEELLA, Fisch. IX	VI		AUROGUTTELLA, Ss. IV VI IX		V VIII
RESPLENDELLA, Dg. VII IX	VI		ONONIELLA, D. ... IV V		VI VIII IX
DOUGLASIA, Stn.			IMPERIALELLA, M. VIII IX		V
OCNEROSTOMELLA, Stn. IV	VII		HOFFMANNIELLA, Schleich		
ARGYRESTHIIDÆ			KOLLARIELLA, Z. ... VI & IX X		V & VII
ARGYRESTHIA, Stn.			CORISCUM, Z.		
EPHIPPELLA, F. ... V	VI VII		BROGNIARTELLA, F. VI to VIII		VII IX
NITIDELLA, F. V	V VIII		CUCULIPENNELLA, H. VIII		VIII IX IV
PURPURASCENTELLA ? Stn.			CITRINELLA, Fisch.		IX X IV
SEMITESTACELLA, C.	VIII		ORNIX, Z.		
SPINIELLA, Z. ... V VI	VIII		AVELLANELLA, Stn. VII IX X		V VI VIII
ALBISTRIELLA, Hw. V	VII		DEVONIELLA, Stn. ...		V
CONJUGELLA, Z. ... VIII	VI VII		ANGLICELLA, Stn. ... VII IX		IV V VIII
SEMIFUSCELLA, Hw. V	VII VIII		BETULÆVORELLA, Dbl. VII IX X		V VI VIII
ÆRARIELLA, Stn. ...	VI		SCUTULATELLA, Stn. IX ?		VI
(possibly a var. of Conjugella)			TORQUIELLA, Stn. VII IX		V to VIII
MENDICELLA, Hw. V	VI VII		SCOTICELLA, Stn. ... IX		V VI
GLAUCINELLA, Z. ... III IV	VI VII		LOGANELLA, Stn. ... IX		V VI
RETINELLA, Z. ... V	VI VII		GUTTELLA, Hw. ... VIII IX		V VI
ABDOMINELLA, Z. ... IV	VII		COLEOPHORIDÆ		
DILECTELLA, Z. ... V	VI		GONIODOMA, Z.		
ANDERREGIELLA, Fisch. V	VII VI I		ATRIPLICIVORELLA, Dbl. IX to V		VIII
CURVELLA, L. V	VI VII		COLEOPHORA, Z.		
SORBIELLA, Tr. ... VI	VII		FABRICIELLA, Vill.		VI VII
PYGMÆELLA, H. ... IV V	VI VII		DEAURATELLA, Luig.		VII
GEDARTELLA, L. ... II IV	VI VII		ALCYONIPENNELLA, Kol. V VI		VII VIII
BROCHELLA, H. ... III IV	VI VII		FISCHELLA, L.		VII
ARCEUTHINELLA, Z. IV V	V VI		PÆRIPENNELLA, Fisch. IX X V		I

LARVÆ		IMAGOS		LARVÆ		IMAGOS	
WOCKEELLA, <i>Z.</i>	v	vi	vii	WILKINSONELLA, <i>Sc.</i> viii	ix	vi	
OCHREELLA, <i>Hw.</i> . . .	v	vii	viii	<i>ELACHISTIDÆ</i>			
SALICORNELLA, (<i>N.S.</i>) x to v		vii	viii	BEDELLIA, <i>Stn.</i>			
BINOTAPENNELLA, <i>Fisch.</i> v		viii		SOMNULENTELLA, <i>Z.</i> viii	ix	viii	x
LIXELLA, <i>Z.</i>	iv	vii		STRATHMOPODA, <i>Z.</i>			
VIBICELLA, <i>H.</i>	v	vii		PEDELLA, <i>L.</i>	ix	vii	
CONSPICUELLA, <i>M.</i> . . .	v	vi	vii	COSMOPTERYX, <i>Stn.</i>			
PYRRHULIPENNELLA, <i>Ti.</i> x iv v	vi	vi	vii	DRURIELLA, <i>Z.</i>	viii	vii	
ALBICOSTELLA, <i>Hw.</i> viii		vi	vii	ORICHALCELLA, <i>Stn.</i> viii	ix	v & vii	
VULNERARIELLA, <i>Z.</i>		vi	vii	LIENIGIELLA, <i>Z.</i> . . .	ix	vi	vii
ANATIPENNELLA, <i>H.</i> v	vi	vi	to viii	BATRACHEDRA, <i>Stn.</i>			
PALLIATELLA, <i>Z.</i> . . .	v	vi	vii	PRÆANGUSTELLA, <i>Hw.</i> vi		vii	viii
IBIPENNELLA, <i>Hey.</i> v		vi	vii	PINICOLELLA, <i>Z.</i> . . .		vi	vii
CURRUCIPENNELLA, <i>Fisch.</i> v		vi	vii	OINOPHILA, <i>Ss.</i>			
NIVEICOSTELLA, <i>Fisch.</i> vi		vi	vii	V-FLAVELLA, <i>Hw.</i> . .	v	vii	viii
DISCORDELLA, <i>Z.</i> . . .	x	vi	to viii	CHAULIODUS, <i>Tr.</i>			
GENISTÆCOLELLA, <i>Dbl.</i> x	vi	vi	vii	INSECURELLA, <i>Stn.</i>		vii	viii
SATURATELLA, <i>Stn.</i> ix	vi	vii		ILLIGERELLA, <i>H.</i> . . .	v	vii	
ONOSMELLA, <i>Z.</i>	v	vii		CHÆROPHYLELLA, <i>Go.</i> vi	ix	vii	viii
INFLATELLA, <i>Stn.</i> . .	viii	vii		DAUCELLA, <i>Pey.</i> . . .	ix?	x	xi
THERINELLA, <i>Stn.</i> . . .	ix	vi	vii	LAVERNA, <i>C.</i>			
TROGLODYTELLA, <i>Stn.</i> v	vi	vii	viii	PALUDICOLELLA, <i>Dbl.</i> ii	to v	vi	to viii
LINEOLELLA, <i>Hw.</i> . . .	iii	vi	vii	LACTEELLA, <i>Ss.</i>	v	vi	to viii
MURINIPENNELLA, <i>Fisch.</i> v	vi	v	vii	MISCELLA, <i>S. V.</i> . . .	iv	v	to viii
SQUAMOSELLA, <i>Stn.</i>		viii		CONTURBATELLA, <i>H.</i> v	vi	vi	vii
CÆSPITIATELLA, <i>Z.</i> ix	v	vi	vii	RASCHKIELLA, <i>Fisch.</i> v	vii	vi	viii
ANNULATELLA, <i>Tengs.</i> ix	x	vii	viii	STEPHENSIELLA, <i>Stn.</i>		vii	viii
SALINELLA, <i>Stn.</i>	x	vi	viii	EPILOBIELLA, <i>Schlg.</i> vi	vii	viii	to v
CACUMINATELLA, <i>Dbl.</i> x		vii	viii	OCHRACELLA, <i>C.</i> . . .	v	vii	viii
ARGENTULELLA, <i>Z.</i> ix	x	vii		PHRAGMITELLA, <i>Ben.</i> v		vii	
VIRGAURELLA, <i>Stn.</i> ix	x	v	vii	DECORELLA, <i>Ss.</i> . . .	v	viii	ix
HEMEROBIELLA, <i>Z.</i> v		vii		SUBBISTRIGELLA, <i>Hw.</i> vii	viii	viii	ix
JUNCICOLELLA, <i>Stn.</i> x	v	vii		ATRA, <i>Hw.</i>	ix	vi	vii
LARICELLA, <i>H.</i>	ix	vi	vii	RHAMNIELLA, <i>Z.</i> . . .	v	vii	
ALBITARSELLA, <i>Z.</i> . .	xi	vi	vii	VINOLENTELLA, <i>H.S.</i>			
NIGRICELLA, <i>Ss.</i>	v	vi	vii	CHRYSOCLISTA, <i>Stn.</i>			
FUSCOCUPRELLA, <i>Z.</i> ix	to v	vi		LINNEELLA, <i>Stn.</i> . .	xi	vii	viii
ORBITELLA, <i>Z.</i>		vi	vii	BIMACULELLA, <i>Hw.</i>		vi	vii
GRYPHIPENNELLA, <i>Bou.</i> ix	v	v	viii	SCHRANKELLA, <i>H.</i> . .	iv	vi	viii
SICCIPOLIATELLA, <i>Stn.</i> vii	viii	vi		FLAVICAPITELLA, <i>Hw.</i> ix	to iii	iv	v
VITISELLA, <i>Gregs.</i> . .	xi	vi	vii	HELIODINES, <i>Stn.</i>			
VIMINETELLA, <i>Z.</i> . . .	ix	v	vii	ROSELLA, <i>L.</i>	vi	vii	viii
OLIVACELLA, <i>Stn.</i> v		vi		ANYBIA, <i>Stn.</i>			
SOLITARIELLA, <i>Z.</i> . . .	x	vi	vii	LANGIELLA, <i>H.</i> . . .	vii	viii	
LUTIPENELLA, <i>Z.</i> . . .	v	vi	vii	ASYCHNA, <i>Stn.</i>			
BADIIPENNELLA, <i>Fisch.</i> v		vi	vii	PROFUGELLA, <i>Z.</i> . . .	ix	vii	
ARTEMISICOLELLA, <i>Br.</i> viii	to v	vii		MODESTELLA, <i>D.</i> . .	vi	v	
GRAMINICOLELLA, <i>Stn.</i> v?		v		ÆRATTELLA, <i>Z.</i> . . .	x	vi	vii
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* * At page 221, third line from the bottom, strike out INTERJECTARIA, as synonymous with DILUTARIA.

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